

THE

Desert

M A G A Z I N E



DECEMBER, 1940

25 CENTS

LETTERS

Reno, Nevada

Editor, Desert Magazine:

I've been reading Marshal South's diary in your interesting magazine each month. Until recently, I had a great desire to visit this unusual family in its desert retreat on Ghost mountain.

But after reading the "trail sign" near Yaquitepec which you published in your October number, I've lost interest in Ghost mountain.

There's too much regimentation up there. With all the faults of our civilized communities, we can still wear the kind of clothes we wish. But at Yaquitepec they post a notice telling visitors what to wear and what to go without.

I love the desert country because of the freedom we enjoy in Nature's great outdoors. But as far as I am concerned Yaquitepec is just another one of those places where they herd you around and tell you what to do.

REX VANDEVENTER.

• • •

Silver Peak, Nevada

Dear Mr. Henderson:

I got a pleasant surprise when I turned to page 30 of the Desert Magazine of October and saw the picture of the stage in the old Piper Opera House, in Virginia City, Nevada. I heard many interesting things about it, of Mark Twain's lectures, and old time actors who played there as I had friends who lived in Virginia City and Carson City for many years, but I was too dumb to remember them.

So I am not writing to win the prize, but just to tell you why this picture interested me.

On that stage, May 28, 1908, I took the part of White Fawn, the Indian girl in The Girl of the Golden West, with Leo C. Bell, leading man and Rose Bell Marston as Girl of the Golden West. Dozens of girls who played there had written their names on the walls of the ladies' dressing rooms, and of course I too put the name I played under, Zetta DeMognette, on the wall of the room I had, where no doubt it still is.

MRS. F. M. HUGHES.

• • •

Tucson, Arizona

Dear Mr. Henderson:

In your September number of the Desert Magazine—"Cochise No Take Cattle." Of course he didn't. Mr. Sherman Baker said so, and so did Cochise.

It is hard to think of a savage who was capable of no greater atrocity than tying down his victim in the hot sun and enticing ants into his propped-open mouth with a line of honey, and listening to his screams of agony—being the author of a crime so great as stealing and lying. No doubt he was the soul of honor, this victim of pale-face treachery.

Excerpt from letters written by some of the pioneers of Arizona: "More than 100 of our citizens were murdered by these Indians (Apaches) in the face of a treaty they had broken without provocation." And again: "... the Mexican alcalde acknowledging that the Apaches had habitually stolen property from the whites in Arizona and ran it into Mexico, and that his government could not afford him protection."



Rocks in Joshua Tree national monument described in Howard H. Pattee's letter on this page

It is well known that even before the white man came to Arizona the Apaches had for ages made their living by stealing from other tribes who were agricultural, and much less warlike. Why such a change of heart toward the white man?

Noble Cochise! It is a hundred to one his people stole the cattle, and he lied. Anyway, Mr. Baker, it was a pretty story.

GEO. W. BAYLOR.

• • •

Seattle, Washington

Dear Miss Harris:

We have now reached the two year stage of Desert Magazine readers and it makes one have a pretty good feeling, especially since we have just returned from another wonderful trip into your country. We thought you might like to know about some of our ramblings as we saw so many places that had been written about by other desert lovers in your magazine.

We left late in August and went to Yellowstone national park by the way of the Bitter Roots and they were particularly lovely at that time of the year. Old Faithful came up to all of our expectations—just about the loveliest sight that one could see on this wonderful earth of ours—and we also enjoyed the rest of the park. We then went on down through the Teton range and they were really beautiful. Then on down through "The Hills of Old Wyoming" to Denver and Colorado Springs, where we had a most enjoyable time at the famous Antlers hotel. And so on down south, over Raton pass and over the Santa Fe trail to Santa Fe and we were fortunate enough to arrive there at the time of the Fiesta—thanks to the information received in the Desert Magazine calendar. I wonder if an article could be written about this historic event and, what we consider, the most colorful place we have ever been. We stayed at La Fonda and only left with the regret that we could not stay—just a little longer. From there we went on to Albuquerque and Oh, how the time flew from there to Riverside. There were so many things to see and so many blankets and so much beautiful pottery to buy and we could hardly go through the Navajo reservation and not stop at every little rug stand as they are so pretty.

The people through New Mexico, Arizona and California seemed to be a little more friendly than anybody we have ever encountered. Even the man at Amboy, in the heart of the Mojave desert, at Bender's Service station. We stopped there for gas and when one of

us asked him if it would be cooler as we went on he said he could not say but said, "You folks have come a long way, many miles, and have spent many dollars in order that you could have a change of scenery from what you have been accustomed to and after all that is what we take vacations for." I believe that is about the nicest way he could have expressed it. Don't you? We thought you might like to know how one man in the heart of the desert can cheer us on our way.

From Barstow we came through the Joshua trees—one of nature's most beautiful sights. They must be beautiful when they are in bloom. Would it be possible to have an article about these "miracle trees" and perhaps a photograph or two?

And so we arrived in Los Angeles and on back to Seattle but we want to thank you in behalf of the Desert Magazine for the many articles about the country through which we passed and hope at some future time, not too far away, to be able to see the Southwest again.

With best personal wishes, I am

E. F. PORTER.

• • •

Claremont, California

My dear Mr. Henderson:

I am sending enclosed two pictures that you may want to use. They show a rare example of natural "opus antiquum" that is to be found on the road to Key's View from 29 Palms. It is visible from the road but it is rather difficult to see as the "wall" is the same color as the surrounding granite. This line is visible for several hundred feet but in only one small section does it attain the height shown in the pictures. The maximum elevation above the base is 4 feet and 6 inches. All of the rocks shown are loose. As far as any direct observation will permit, the rocks on the top are the same material and composition as the basic granite out of which the wall seems to emerge. In addition to the structural and material peculiarity it is remarkable that a "dry masonry wall" of this age could stand so long in an area known to have had many earthquakes.

I will be glad to give you more information if you wish. We enjoy the Desert Magazine regularly and congratulate you on its continued improvement. Incidentally we can recommend the "Big Rock Country" as having some of the best air raid shelters in the world.

Yours until Quail springs becomes a "military objective."

HOWARD H. PATTEE.

DESERT Calendar

NOV. 29-30—Fiesta Days in Brawley California.

29-30 Barry Goldwater to give illustrated talk on his recent trip down the Colorado river, at Heard Museum, Phoenix, Ariz.

DEC. 2 Argentinita's field company of Spanish dancers, on artist series of University of Arizona, Tucson.

2-3 Papago Fiesta celebrating feast of San Xavier, patron saint of the Old Mission, San Xavier Mission, Tucson, Arizona. Evening events begin 7:30; solemn services 9:30 a.m., Dec. 3. Juan Davis, chairman.

5 Imperial Valley Associated chambers of commerce convention, Cal-exico, California.

7 Imperial Highway association to meet in El Centro, California.

8 Third annual amateur rodeo, sponsored by Imperial-Yuma Peace Officers, at Imperial county fair grounds, Imperial, California.

10-JAN. 2 Christmas festival in Madrid, New Mexico.

12 Fiesta of Nuestra Señora de Guadalupe, Santa Fe, New Mexico.

14-15 Southern California Sierra club members will explore Menagerie and Pastel canyons in the Mojave desert. For map and further information see Desert Magazine, December 1939. Leaders: Russell and Peggy Hubbard, 2071 Balmer Dr., Normandie 5682, Los Angeles, California.

15 Sixth annual dog show, Palm Springs, California. Open air showing, all breeds.

24 Night procession with cedar torches, Taos Pueblo, New Mexico.

24 Christmas Eve Nativity scenes, Santa Fe, New Mexico.

24 Dances after midnight mass, Indian Pueblos of New Mexico.

24 Jaycee Christmas Tree at Phoenix, Arizona High school stadium. Mar Meyers, chairman.

25 Indian Deer Dance, Taos Pueblo, New Mexico.

28-29 Pushawalla Canyon and Willis Palms, north of Edom, to be visited by Sierra club. See map and story in Desert Magazine, December 1937. Leader: Tom Noble, 3005 Fanita St., Olympia 5517, Los Angeles, California.

28-JAN. 1 Southwestern Sun Carnival and Sun Bowl football game, El Paso, Texas.

29 Annual rendition of "The Messiah" by Salt Lake Oratorio society, with Salt Lake Tabernacle Choir and assisting artists. W. Jack Thomas, chairman, Union Pacific Bldg., Salt Lake City, Utah.



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The Desert Magazine is published monthly by the Desert Publishing Company, 636 State Street, El Centro, California. Entered as second class matter October 11, 1937, at the post office at El Centro, California, under the Act of March 3, 1879. Title registered No. 358865 in U. S. Patent Office, and contents copyrighted 1940 by the Desert Publishing Company. Permission to reproduce contents must be secured from the editor in writing.

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Manuscripts and photographs submitted must be accompanied by full return postage. The Desert Magazine assumes no responsibility for damage or loss of manuscripts or photographs although due care will be exercised for their safety. Subscribers should send notice of change of address to the circulation department by the fifth of the month preceding issue.

SUBSCRIPTION RATES: 1 year \$2.50 — 2 years \$4.00 — 3 years \$5.00

GIFT SUBSCRIPTIONS: 1 subscription \$2.50 — two \$4.00 — three \$5.00

Canadian subscriptions 25c extra, foreign 50c extra

Address subscription letters and correspondence to Desert Magazine, El Centro, California



When Santa Comes to the Desert

By ELWOOD LLOYD
Illustration by Norton Allen

Oh Gee! Gosh-golly, and Dag-nab!
(Hearty North-Pole swearing)
They look so pretty, but how they grab!
(It's cholla that Santa's wearing)
Their waxen spines, in the Christmas moon
Shine like silver floss or a silk cocoon
But their barbs are sharp as a steel
harpoon
And into my hide they're tearing.

I swan, I vow, and I do declare,
(More Arctic Circle cussing)
I've trekked this desert with wary care
(It's cholla he's still discussing)
But the dad-burn things jump out and snag
A traveler's clothes and dunnage bag
And tear good pants almost to rag.
Small wonder that I'm fussing.

My delivery schedule's shot all to heck!
(Now Santa's execrating)
And my temper's snarled in a bloomin' wreck.
(Cholla's so aggravating)
I just touched one in passing by
And a hundred smote me hip and thigh.
I like this old desert, but my, oh my—
Cholla's most exasperating!

EXILE

By ROBERTA CHILDERS
Fallon, Nevada

I'm grey and gold-flecked high grade,
A chunk of ore in a ring,
Polished rare like the piece of jade
That graced an ancient Ming.

The man who wears me treats a whim,
For he never worked a mine.
The hole that coined me means to him
More gilt-edged stock to sign.

I was blasted from the earth's deep womb,
Picked from out the muck;
They took me to his silken room,
Said, "Here's a piece for luck."

Since then I've traveled from Nome to Castile,
But you miners will understand
When I say it's lonely. I want to feel
The touch of a kindred hand.

JUST CLOUDS

By EDWIN S. GILES
Goldfield, Nevada

There are clouds that teem with moisture,
There are clouds that promise rain,
But they rapidly drift past us
And are never seen again.

There are clouds so dark and threatening
As though rain, it surely must:
But they vanish o'er the hill top
Leaving us with clouds — of dust.

DESERT CHRISTMAS

By ADELIA M. PRUDDEN
Morro Bay, California

Green mistletoe in gay festoons was strung
By nature's own artistic hand, and hung
In banners from the cottonwoods age old
Beside a stream the sunset turned to gold.

And desert holly one of us renamed
"Holly Immaculate" and so proclaimed
Was woven into silvery wreaths to hang
While mocking birds at Christmas midnight
sang.

The skies were blue, the sun shone warm and
bright,

And stars were big and close above at night,
With one great star a scintillating gem
We thought must be the star of Bethlehem.

The shepherd's camp fires on a high plateau
Gleamed friendly in the night like candles
glow,

And we could hear the watchful herd-dogs
bark

That told the flocks were safe there in the
dark.

And peace was there, goodwill to fellow man,
With understanding of our Saviour's plan,
For He was host it seemed, and graciously
Gave unto us His hospitality.

CHRISTMAS STAR

By GRACE CULBERTSON
San Diego, California

To find the Christmas Star I'd leave the sea
And seek the solitude of desert sands;
For in still places hide the holy lands:
High desert skies are full of mystery
And there a star could lead men easily.
The shepherds and the wisemen and the bands
That crossed old deserts from the caravans
That keep the pilgrim willing company.

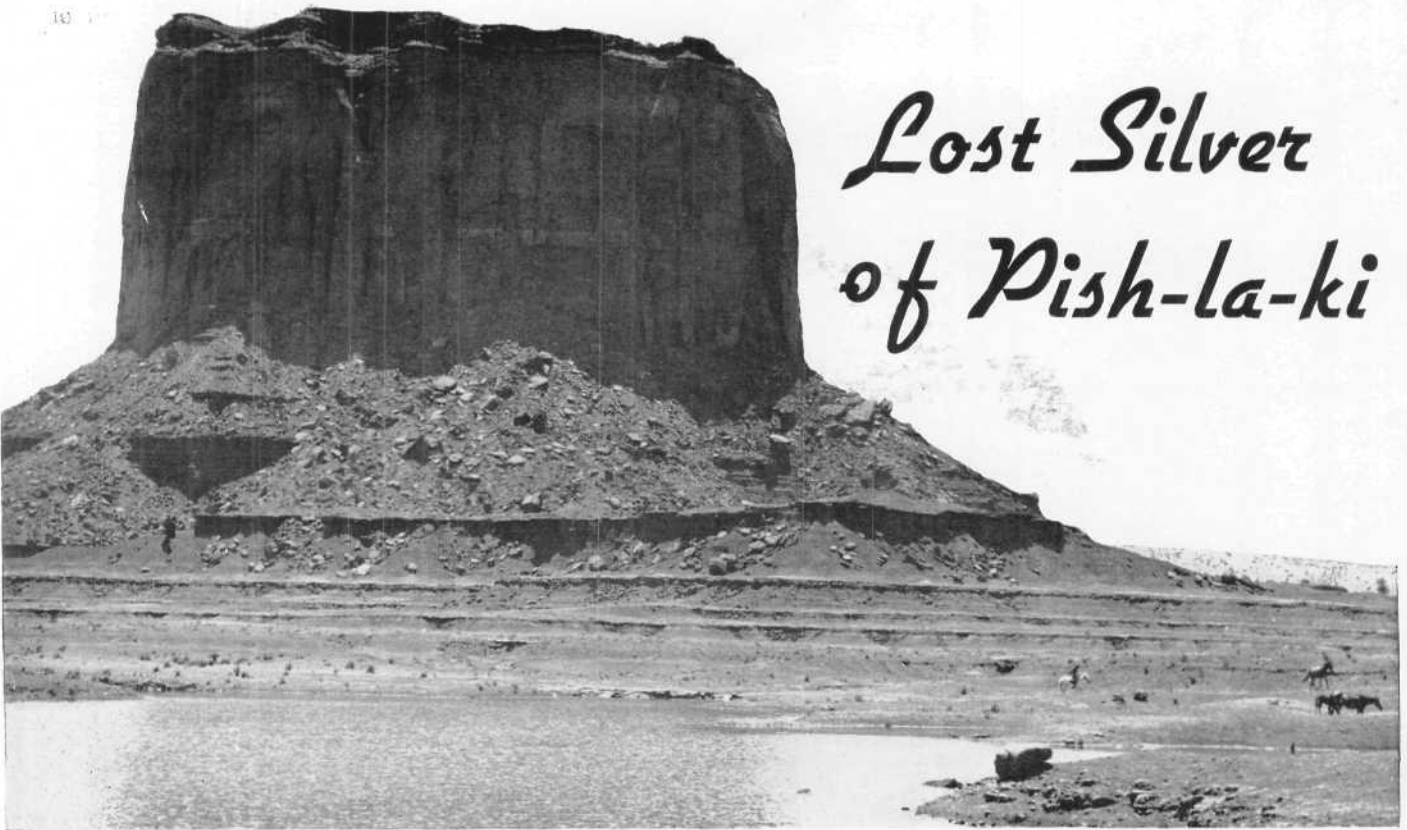
Not Galilee or any other sea
Nor pleasant places of your land or mine
Were half so fraught with strange expectancy
As are these quiet sands that hold the key
To some forgotten peace, some shining shrine,
Some promise past the last Gethsemane.

CREED OF THE DESERT

By JUNE LE MERT PAXTON
Yucca Valley, California

I'm a harmless native
Just out for a whirl;
I'm an old sand-devil
Just taking a twirl.

Lost Silver of Pish-la-ki



Two white men found the lost silver mine of the Navajo—but were killed by Indians before they could profit from their discovery. Seven of the Navajo tribesmen once knew the location of the fabulously rich deposit—but they are all dead. And so the location of this treasure remains one of the mysteries of the Southwest. This is one lost mine story that is substantiated by known facts. The story of Cass Hite and the lost Navajo silver mine is of special interest at this time because of Secretary Ickes' proposal including the old Hite ranch in a new national monument in southern Utah.

Mitchell Butte in Monument valley at the base of which the prospectors Merrick and Mitchell were killed by Utes in 1880. Water in the foreground is a reservoir recently constructed by the Indian service, for watering Navajo stock.

By CHARLES KELLY

DOWN in the Four Corners region in the summer of 1882, a group of government surveyors were establishing the boundary between Utah and Arizona. They were in Indian country—Navajo to the south and Utes to the north—and because of recent troubles with the Utes growing out of the Meeker massacre, the surveyors were accompanied by a company of soldiers.

One hot day a lone rider was seen approaching headquarters camp, spurring his horse as if in a great hurry. He drew his horse to a halt in front of the cook's tent, asked for a drink of water, and then turned as though to ride on again.

"Hey!" yelled the cook, "wait a minute! Dinner'll be ready in a few minutes and you're sure welcome to eat with us. Where'd you come from anyway, and what you doin' ridin' alone in Indian country? If the Navajo don't get you the Utes will. They're right hostile."

"Can't wait," said the rider, "got to be on my way. Somebody might beat me to it."

"Beat you to what?" asked an officer who had come up to see what the stran-

ger wanted. "Has there been a new gold strike on the San Juan?"

"Not exactly," replied the rider, "but I've got to hurry. It's important."

"Hold on there," laughed the officer, "nothing's so important you can't stop and have beans with us. Here, corporal, give this gentleman's horse a bag of oats."

The rider grudgingly consented to accept the camp's hospitality. As the officer led the way to his tent he introduced himself as Captain Hadley, U. S. Engineers, in charge of the surveying party.

"My name's Cass Hite," replied the stranger, "just a fool prospector from over Telluride way."

"I guessed as much from the looks of your outfit," said the captain. "But it's mighty dangerous to ride through the Navajo country alone. You shouldn't go on without at least a dozen good men."

"Can't do that," replied Hite. "I don't want to split with anybody. The Navajo don't worry me none; I can take care of myself."

"A lot of fellows have said that," replied Captain Hadley, "but some of them

never came back. It's only been two years since two prospectors were killed somewhere southeast of here. They'd struck it rich, too, before the Indians got them."

"I guess you mean Merrick and Mitchell," said Hite. "I knew them both back in Durango."

"Then you must know the story of the Lost Pish-la-ki mine. By thunder, I'll bet a month's pay that's where you're headed right now."

"Well," said Hite sheepishly, "I didn't intend to tell anyone, but you guessed it all right. For God's sake don't tell the boys around camp; I don't want the whole army following me down there. I've got a map and I'm dead sure I can locate the mine, but if I can't go alone I won't go at all."

"Can't blame you for that," the captain admitted. "It must be mighty rich from what I've heard. I saw some samples over in Rico that were brought out by the men who went to look for Merrick and Mitchell, but only found their bones. Looked like pure silver to me. If you find that mine you'll be a mighty rich man. Say, how about letting me in on this? I'll take a gamble on your chances of finding it. You'll need money to open the diggings and get the stuff



Hite, Utah. A photograph taken about 1900 when Hite was the most isolated postoffice in the United States. The cabin to the left of the tent was Cass Hite's first home on the river, built in 1883. It is the only one of this group still standing at the mouth of Trachyte creek. The ford of the Colorado here was known as Dandy Crossing or Hite's Crossing.

out. I've still got a hundred dollars from last pay day."

"I don't like to take it, Captain," said Hite with a studied show of hesitation. "I figured to keep this all to myself. But as you say, it'll take a little money to get the stuff out, and I'm about broke. Guess I could use that hundred; but

don't tell any of the others. This is just between you and me."

When mess call was sounded the captain led his guest to the cook tent and introduced him to the other officers and men. The talk naturally turned to mining, and in a very short time, although Hite appeared very reluctant to talk, the

whole camp knew that he was on his way to locate the fabulous Pish-la-ki mine. Several of the men had seen samples of the ore at Spencer's trading post where Merrick and Mitchell had outfitted for their first trip.

After dinner the men gathered around Hite and insisted he sell them shares in the lost mine, which he finally consented to do, still pretending the greatest reluctance. When he left, his saddlebags contained \$1600, every cent in camp. The soldiers had nothing to show for their money, and Hite never intended to divide with them even if he found the mine. The incident afterward furnished him with many a good laugh.

But Cass Hite spoke the truth when he said he was on his way to locate the lost Pish-la-ki mine, which in two years had already become a legend. Merrick and Mitchell had actually found an exceedingly rich vein or pocket containing silver so pure that it could be worked without smelting. The original discovery was made in 1879, and they had brought out samples. In 1880 they went in again to determine the extent of the deposit, and on their way out had been killed by Indians in Monument valley. Later that year 20 heavily armed men from Blanding, Utah, rode into the valley, where they found the bones of the two prospectors, and several small sacks of very rich ore. It was supposed the mine was not far from where they had been killed. The Navajo, however, and particularly Chief Hoskaninni—the "Angry One"—



Author Charles Kelly visits Cass Hite's lonely grave at the mouth of Tickaboo Creek on the Colorado river.

who claimed that section as his private domain, were said to be hostile toward prospectors, and no further attempt had been made to locate the treasure.

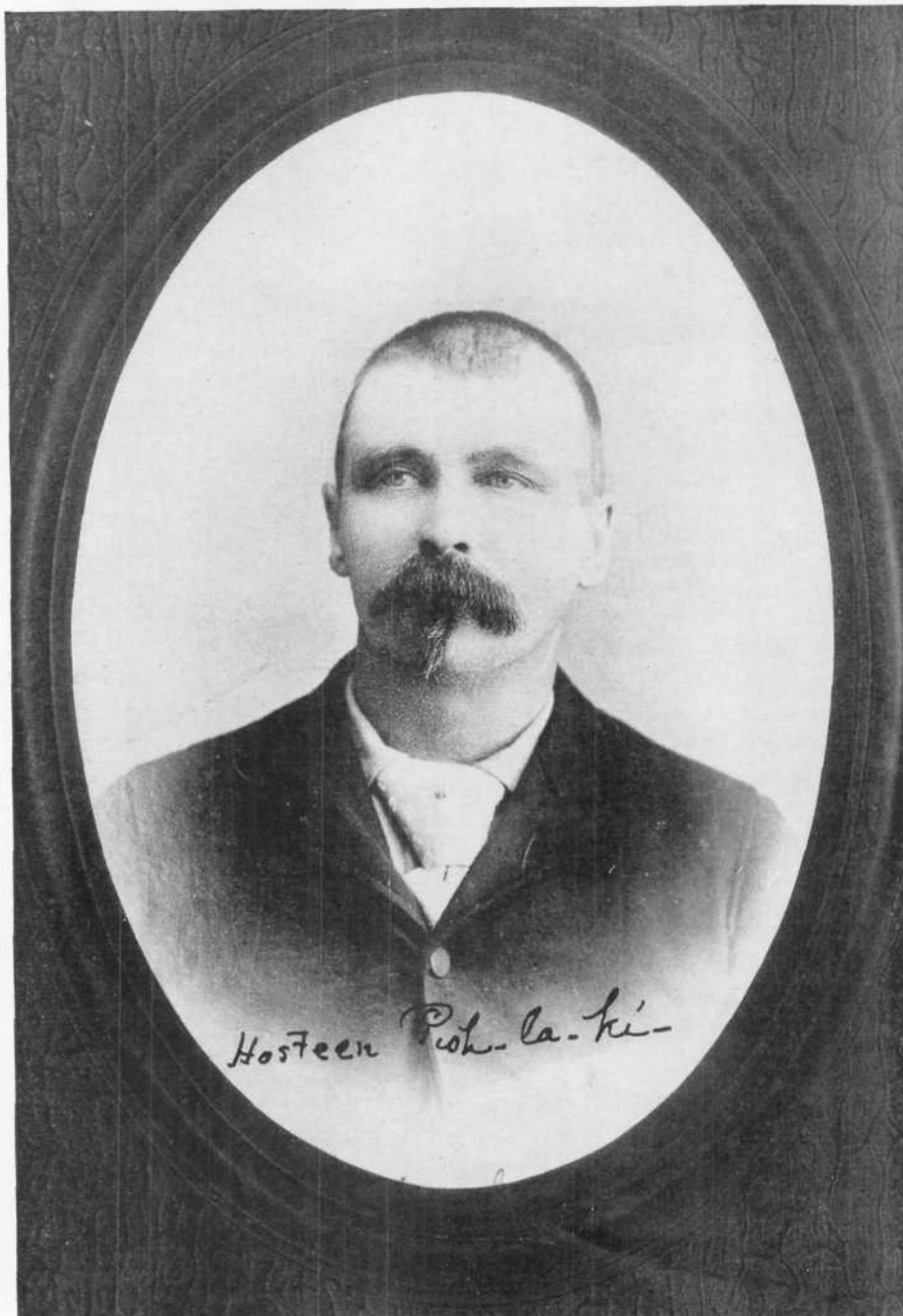
Cass Hite believed he could do it and had set out alone on his quest. It was a rash thing to do, but he was willing to take the risk. He was born in Missouri, of pioneer parents; in fact his father had been in the gold rush of '49. At 16 Cass left home to seek his fortune in the west. He had prospected in all the western states, had learned to drink and fight and felt equal to anything the frontier had to offer in the way of wild adventure. He had just come from Telluride where it was rumored he had killed a man over a mining claim. Some say he left town between days, preferring the Indians to a miner's jury. He had heard of the Merrick and Mitchell discovery—as who hadn't—and was the first to attempt to relocate it.

* * *

For years I had been collecting stories of Cass Hite, hermit of the Colorado, who has already become a legendary figure through his long research for the lost Pish-la-ki mine. I knew that he once killed a man in Green river, Utah; that he had spent two years in the pen; that he had been released to die after contracting tuberculosis. I learned how he was nursed back to health by friends in the little Mormon village of Hanksville; how he went down on the Colorado river to become a hermit and avoid the pitfalls of liquor; how he lived at what is now known as Hite's crossing until the gold rush of 1898 forced him to find another haven further down the river at the mouth of Tickaboo creek; and how he lived there alone until his death in 1912. I talked with one of the men who helped bury him when he was found dead in his lonely cabin.

But there were gaps in the story. What did he do when he went into the Navajo country alone? How was he treated by the Indians? Did he ever find the lost mine, and if so, did he ever work it? These questions remained unanswered until the spring of 1939 when I made a trip to Monument valley to interview Hoskaninni-begay, 82-year-old son of Hoskaninni. I asked this old Navajo gentleman to tell me the story of the lost Pish-la-ki mine and of Hosteen Pish-la-ki who came to search for it. Here is what he told me:

"Yes, my friend, I remember those two men who were killed in Monument valley. It was a long time ago. They had been here once before—we remembered their horses—but they didn't bother us, so we didn't bother them. Always they were looking at the rocks and every day they stopped somewhere to dig. They came in late summer and stayed until after the first snow. At that time my father's camp was on the east side of



CASS HITE

From an old photograph in the Frank Beckwith collection.

Navajo mountain. Not far from our camp I saw the tracks of their horses in the snow; they had passed in the night. A few days later we heard they had been killed near what the white men call Mitchell Butte, by the Utes. In those days there were still many Utes in Monument valley. Those two men were shot by No Neck, a very bad Ute, when they wouldn't give him any tobacco. They said they had no more, but No Neck thought they were lying. The Utes took their horses and saddles but left the sacks they had been carrying. The sacks were full of heavy rocks. I saw them afterward, lying on the ground.

"Many white men believe that my father killed those two men and that I helped him. But that is not true. We

were living at Navajo mountain when they were killed. We had no quarrel with them. No Neck's son lives near Blanding, Utah, and he will tell you that I speak the truth. Why should I lie to you, my friend? And why do you ask about those two men? Many other white men were killed in this country in those days."

I explained to Hoskaninni-begay I was interested in the two prospectors because their discovery of a rich silver mine had led Cass Hite into that country, and asked him if he remembered Hite, who was known to the Navajos as Hosteen Pish-la-ki.

"Pish-la-ki? Oo-oo!" said the old man as his face lighted up. "I knew him well. He and my father were just like broth-

ers." He laid his two fingers side by side in the sign for brother. "The first time I saw that man was at our camp below Kayenta, about two years after the prospectors were killed. He walked into camp one day and sat down by the fire. He had made himself our guest according to Navajo custom, so we took care of his horses and gave him a sheepskin to sleep on. He talked to us by signs because he did not understand our language. In his pack he had many kinds of ore. He showed me a piece of heavy black rock and asked me if I had seen anything like it in our country.

"As you know, nearly all the rock here is red; but a few days before, while riding on Skeleton mesa, I had picked up a small piece of black rock. I showed this to our visitor and when he looked at it through a glass he nearly fell backward into the fire with surprise. He made signs that it contained silver and wanted me to show him where it came from.

"He stayed with us three months and soon learned to speak our language. We called him Pish-la-ki, because he was always looking for silver. I rode with him all over the country. He taught me to know gold, silver, copper and iron ore. On Skeleton mesa we found a small sack full of black rocks. We found green rocks in Copper canyon, but we never found a silver mine.

"Father and I, with two others, took Pish-la-ki out to the railroad at Winslow, with the sack of samples he had picked up. He gave us \$30 in silver money and loaded our horses with gifts from the trading post. We liked Pish-la-ki very much. He was like one of our people.

"About a year later I was riding in Copper canyon when I saw the footprints of a white man. Following them I found Pish-la-ki, and we embraced like brothers. He was still hunting for silver. Again we rode together for many days but found nothing. I next saw him in the Uintah country where I went to trade with the Utes. He was hunting for a cave said to be filled with gold.

"He came back to our country later that year (1883) and my father took him north across the San Juan to the canyon of the big stone bridges (Natural Bridges national monument). From there they went down to the big river (Colorado) where Pish-la-ki found tiny specks of gold in the sand. He built a cabin and stayed several years, then moved down to Tickaboo creek opposite the canyon of red rocks, where he built another cabin, planted a garden and lived until his death (1912). We often visited at the Red Rock house and traded blankets for flour, sugar and coffee. Then Pish-

la-ki would give a big feast for us. Sometimes he would give us some firewater. A drink or two between friends is good. It helps one to talk.

"About 40 years ago some white men built a big machine on the river (the Stanton dredge) to take gold out of the sand. Men were digging everywhere on the sandbars. We often sold fresh mutton to the miners. Pish-la-ki interpreted for us because he was the only one who could speak our language."

When Hoskaninni-begay had apparently finished his story I asked the question that had been on my mind all during the interview, wondering if he would feel disposed to answer. "I have heard that your people once had a mine where you got silver to make ornaments. Is that true?"

"Yes," the old man answered without hesitation, "that is true. There was a place where we used to dig silver from the rocks and hammer it into ornaments. In those days our silver work was plain, not decorated with designs nor set with turquoise like it is now. We got silver from that place whenever we wanted it. But we knew we would be driven out of the country if white men found that mine, so we kept it a secret. Only seven men knew its location. One by one those men grew old and died. When the last one was dying he called his oldest son and tried to tell him how to find the mine. The son searched for many months, but could never find it. Now the secret is lost. My father was one of the seven, but he never allowed me to go there

with him. I have seen silver that came from that place. Some of it is buried with my father. Pish-la-ki taught me to know silver ore, and I have hunted for that mine for a long time. Now I am old and poor, but still whenever I ride I look at the ground, and think maybe some day I will find that rich mine. Then my children would not be hungry."

Stories of the Pish-la-ki mine have been in circulation all over the west ever since 1880. The fact that it was actually discovered by Merrick and Mitchell is established beyond any doubt. The fact that Chief Hoskaninni, during the five years he was in hiding from the white soldiers, obtained native silver to work into ornaments, is also established. But the location of the vein or pocket was never rediscovered, even by Cass Hite, the chief's best friend among the whites. Hoskaninni was too wise to reveal his secret. No such silver has been seen among the Navajo for 40 years or more. I am satisfied that my old Navajo friend has told the truth and that the famous Pish-la-ki mine is now lost even to the Navajo.

Since Cass Hite's day hundreds of prospectors have hunted for this treasure and the ground has been covered many times, in spite of the fact that it lies in the most inaccessible corner of these United States. It may have been only a rich pocket that has been worked out long ago; or it may have been an outcrop of the richest deposit of silver ever laid down by nature. Apparently no living man knows the answer.

Prizes to Amateur Photographers

Each month the Desert Magazine offers two cash prizes for the best camera pictures submitted by amateur photographers. The first award is \$5.00 and the second \$3.00.

Pictures are limited to desert subjects, but there is no restriction as to the residence of the photographer. Entries may include Indian pictures, rock formations, flowers and wild animals, canyons, trees, waterholes — in fact everything that belongs to the desert country.

Following are the rules governing the photographic contest:

1—Pictures submitted in the December contest must be received at the Desert Magazine office by December 20.

2—Not more than four prints may be submitted by one person in one month.

3—Winners will be required to furnish either good glossy enlargements or the original negatives if requested.

4—Prints must be in black and white, 3½x5½ or larger, and must be on glossy paper.

Pictures will be returned only when stamped envelopes or photo-mailers are enclosed.

For non-prize-winning pictures accepted for publication \$1.00 will be paid for each print.

Winners of the December contest will be announced and the pictures published in the February number of the magazine. Address all entries to:

Contest Editor, Desert Magazine, El Centro, California.

Hellorado Days

By GENE O. PARKS
Las Vegas, Nevada

Awarded first prize in the October photographic contest. Taken with a Korelle-Reflex camera, $2\frac{1}{4}$ by $2\frac{1}{4}$, 1/100 sec. at f4.5 on Superpan Supreme film with light red (A23) filter. Just before sunset in May.

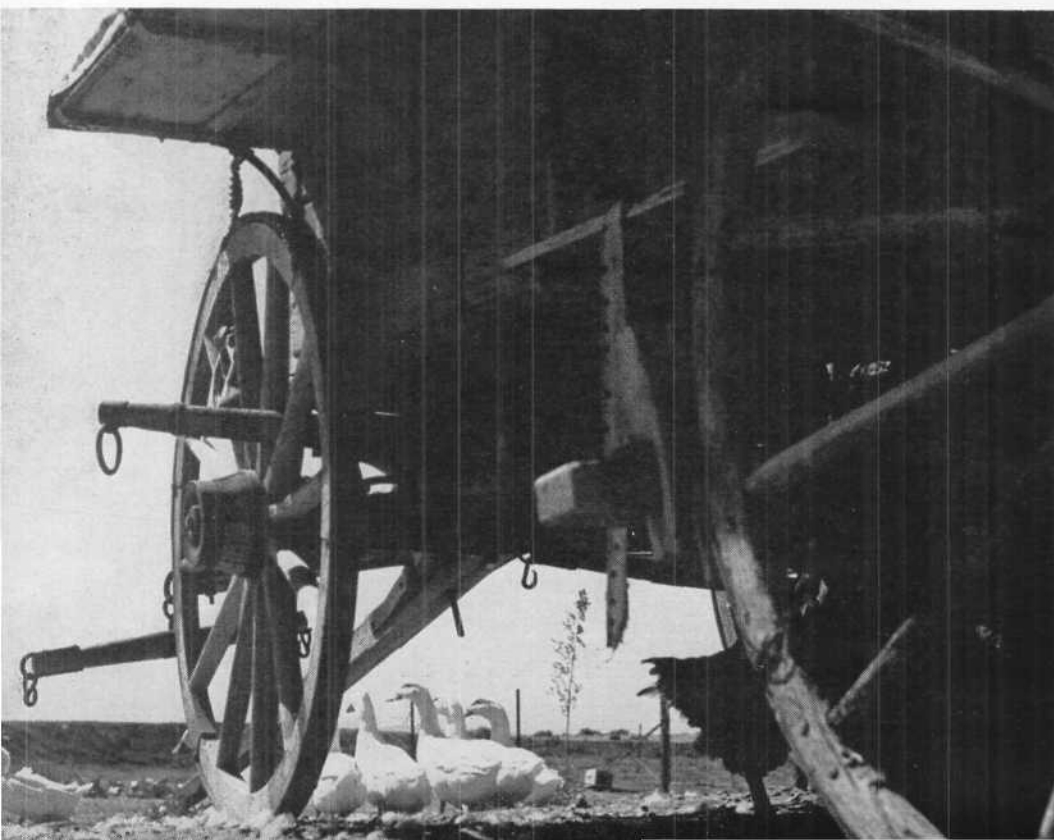
Special Merit

The following photographs entered in the October contest were considered by the judges to have special merit:

"Night Blooming Cereus," by R. G. Gemmel, Ontario, Calif.

"Mission San Xavier, Tucson," by Nelson Gray, Silver City, New Mexico.

"Portrait of Happy Sharp," by P. A. Bailey, San Diego, Calif.



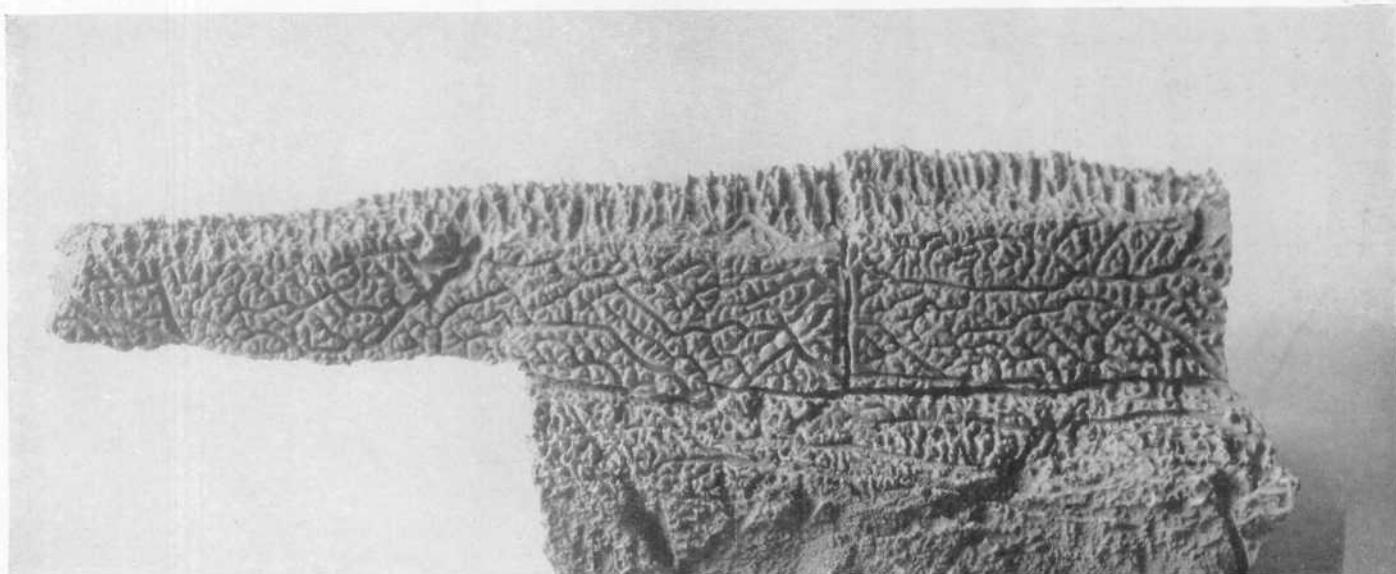
Homestead

By GLADYS MILDRED RELYEA
Salt Lake City, Utah

Winner of second prize in the monthly contest conducted by Desert Magazine. Camera used was a Zeiss Ikonflex II, f3.5 Tessar, 1-1/500. Agfa Superpan Supreme film, 1/50, f.8, medium yellow filter (exposed for shadow detail), bright sun, 11:00 a. m., August. Brovira (Solar Enlarger).

Probably you never heard of rillensteine. Neither had the staff of the Desert Magazine until this story came in from a professor at Pomona college. But now we know the answer—it is a piece of lime-

stone that looks as if the worms had been eating it. As a gem stone, it doesn't rate high—but no self-respecting rock garden should be without a rillensteine specimen—all covered with wurmrillen.



Rainwater carved the unusual pattern on this specimen of rillensteine from Silver mountain.

The Rillensteine Case

By J. D. LAUDERMILK

NO, this is not a murder mystery. It is the story of a certain type of rock that is found in many places on the desert. It is a rather common rock—and yet probably not one person in 10,000 would recognize it by name if he encountered it on a hillside or in an arroyo.

Rillensteine could hardly be classed as gem stone—and yet it often comes from the same deposits where beautifully patterned marble is quarried.

For the collector, the interest of this rock is primarily in its unusual attractiveness for rock gardens, fireplaces and other ornamental purposes. The supply is so great that no one could ever accuse you of being a rockhog if you took home a few hundred pounds to decorate the front lawn or the barbecue pit.

Three rillensteine localities on the Southern California desert are mapped for readers of this number of Desert Magazine. No doubt there are scores of other places where it is found — and therein lies an opportunity for those who like to explore the desert for something new. Now that you know about rillensteine—go out and find a new locality where it occurs. All you need to locate is a deposit of limestone where it rains only once in a blue moon.

My first encounter with rillensteine

was on a rainy evening when no person in his right mind would be out in the weather. I was browsing through the geology museum at Pomona college.

In one tray of specimens I saw a dozen samples of limestone that appeared to have been badly worm eaten. The channels on the surfaces of these rocks were exactly like the kind of thing you might expect to find on the back of some antique dresser. But they looked altogether out of place on a piece of limestone. My curiosity was aroused. At the first opportunity I asked the head of the geology department just what rock had to do to get itself into the condition of the ones in the collection.

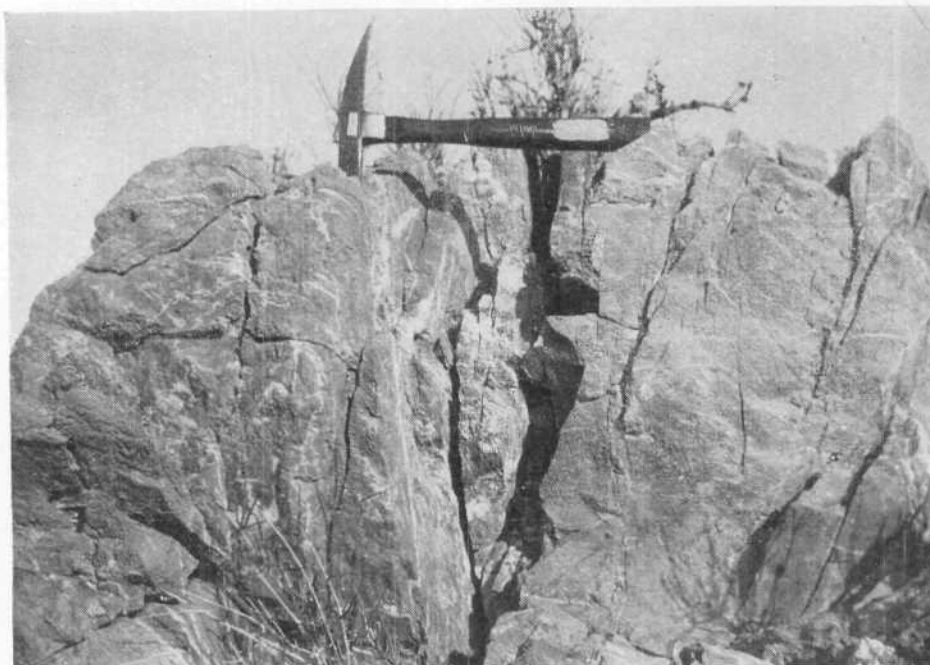
I learned several things. In the first place, the rocks were called "rillensteine" and the channels "wurmrillen." They had first been mentioned by the geologist G. K. Gilbert, who observed rocks eroded in this way on a mesa below the mouth of the Virgin river near the Colorado in 1875. This type of rock weathering went unnamed until 1897 when another geologist, Andreae, proposed the name "rillensteine."

Such curiously channeled rocks were said to occur in all parts of the earth in localities of little rain. They most commonly consisted of limestone. Their size ranged from a pebble to a butte. Finally,

and most important, it turned out that these "rillensteine" were more or less a geological mystery and would offer a wonderful opportunity for scientific detecting, provided the rock-sleuth was willing to do considerable work both in the laboratory and out in the desert.

Practically all previous researchers had left the subject just where they found it—"up in the air." Many observers were of the opinion that the rills had been made by some form of sand-blasting. Others held that gently trickling streams of dust from the back-lash of the spent sand blast were responsible. One highly imaginative view of the subject was that certain specimens from the Sahara had been formed by the desert winds hurling the rocks about so violently that rills like the fusion channels on the surfaces of some meteorites had been produced. Others favored the action of weakly acid water, but failed to offer any conclusive evidence. I decided to take the case, not only for the noble purpose of advancing the science of geology another sixteenth of an inch but with the more practicable aim of obtaining some wonderful material that would add beauty and interest to a proposed rock garden.

My first job was to find some rillensteine in place in its natural habitat. During the next few months I found



Rillensteine outcrop on the Mojave desert near Adelanto.

several such localities. The first was a veritable outdoor museum of rillensteine.

This locality is just east of Garnet station, California, on the Southern Pacific railroad. It is called Garnet hill, and is an isolated hump of no particular dignity, at the east end of San Geronimo pass. Unfortunately, this occurrence is in definitely hostile territory where collecting is a grab-and-run proposition. Although there are thousands of tons of rilled limestone scattered around over the hill, rumor has it that a party of famous geologists was once chased off the premises in absolute disorder by an irate woman. She was armed with a pick-handle.

I was not on that expedition and can only speak from hearsay, but a reliable informant says it was one of the most laughable episodes in geologic history. Recently, one of the leading participants in the Garnet Hill debacle told me the locality is now safe for collecting and no hostile demonstrations need be expected. I secured several specimens of the rilled limestone there without any unpleasant results.

These were taken to the laboratory and "given the works" under the microscope, followed by a complete chemical analysis. I gained much information. For one thing, I found frequent flakes of mica and graphite extending into the channels. Mica and graphite are two very soft minerals and any wind action would certainly have cut off these flimsy minerals if it had been strong enough to wear away the hard limestone itself. After several other observations, including a stiff third degree by means of a synthetic "dust-devil" set up in the laboratory, the wind was finally cleared of

all suspicion. The action of the sand or dust blast was found to merely smooth away the surface, and had no tendency to produce anything even remotely resembling "wurmruhlen."

I now felt certain that I was on the trail of the alternative suspect by the name of "solution." This phase of the work took three of us into the Mojave desert at Silver mountain. Silver mountain is the high sounding local name of an unimportant peak in the Shadow mountains northwest of Adelanto.

To reach this point take plenty of water and bedding and follow the map. Be prepared to make a two day trip of it and camp out. Anyway, it will be more fun that way. When I was there, Silver mountain was a happy hunting ground

for rillensteine during the day but a place of near arctic temperature. It was in January. The expedition was sleeping on the ground and the only available firewood was the dead trunks of Joshua trees. These give a lot of heat at the start but burn as fast as a pile of lace curtains.

At Adelanto we really pinned the goods on "solution." It was an open and shut case. On many of the outcrops, the rills ran down on both sides like water from the ridge of a house. Thin and less sharp at the top, they became deeply channeled at the ground-line. Beneath the soil we found a continuous deposit of caliche or soft and chalky limestone. This type is always formed by the rapid deposit of calcium carbonate from solution.

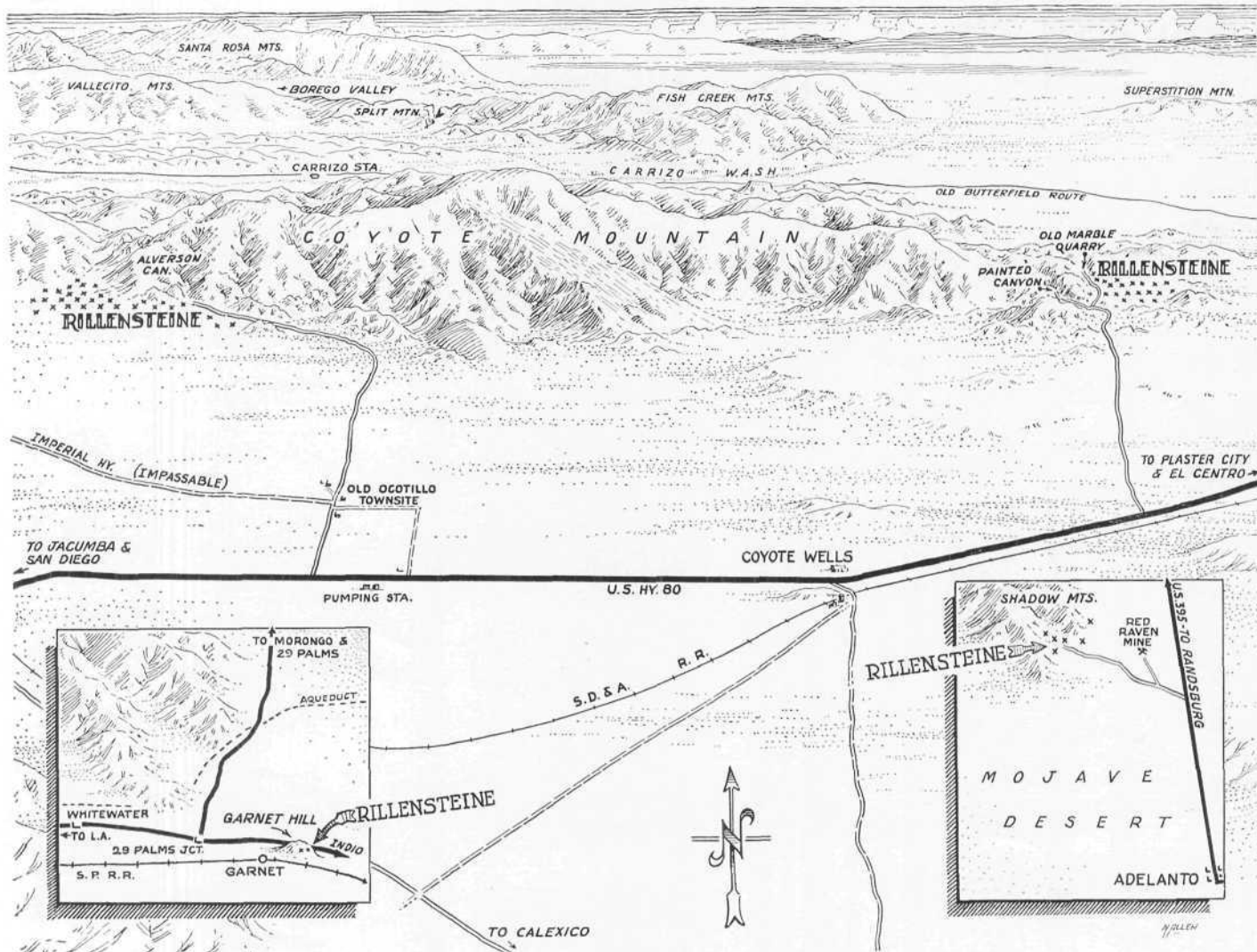
The next stage of our operation was to find how and why solution had formed wurmrillen. We obtained this information from two other sources—at Black mountain, about 15 miles northeast of Victorville and in the laboratory. At Black mountain the entire faces of enormous buttes are rilled and channeled in the most remarkable way. Fossil coral in these specimens make rocks from this locality doubly interesting.

Here, the true wurmrillen only occur where the run-off is most rapid. At the bottom of the buttes where the water has had time to accumulate for a considerable time, strong V-shaped grooves surround fossil coral embedded in the limestone. The rills were definitely the work of water—but how?

Ordinary water, free from any trace of acid is a very poor solvent for limestone. In fact, one liter (about a quart) will dissolve only 14 milligrams (about the weight of a fat fly) of limestone at 18 degrees. But, when the water contains much carbon dioxide in solution, which



Block of rillensteine from Garnet hill in Coachella valley, California.



is practically always the case with natural water, it is a different story. In this case the water dissolves the limestone very easily and makes a solution of calcium bicarbonate. Too much of this solution is more likely to produce a cavity than anything like rillenstein. However, where desert limestone is exposed for short lengths of time to rain-water which contains only a little carbon dioxide, the typical rills will be formed and will be etched deeper and deeper with each succeeding rain.

Armed with this information we finally succeeded in producing rillenstein in the laboratory under controlled conditions corresponding to those which occur in the desert. An apparatus was arranged so that a continuous film of slightly acid water could flow down the face of a limestone block for 76 hours. Typical rillenstein were formed which exactly resembled the natural product.

The detailed account of how we finally pinned the case on solution can be found in the American Journal of Science, Vol. XXIII, pages 135-54. Of all the jobs of scientific detecting that I have handled since, the "Rillenstein Case" was perhaps the most interesting.

Friends have told me of a number of places in the desert Southwest where rillenstein occurs, either as float or in place.

One of the largest fields is the great bajada that extends for miles around the base of Coyote mountain in western Imperial county, California. Literally thousands of tons of this "worm-eaten" limestone lay scattered among the float which is spread over this area. The predominating colors are white and grey, but beautiful shades of pink, yellow and lavender appear in many of the stones, which range in size from a baseball to huge boulders weighing tons.

Some of the marble in Coyote mountain is of commercial quality and a quarry was operated on the northeast slope at one time. However, transportation difficulties made it an impracticable venture.

Imperial valley residents have been gathering this material for rock gardens for years, calling it "weathered marble." The supply is practically inexhaustible in this field.

Rillenstein should be in every rock garden—and the desert has been saving a few choice specimens for you.

Weather

FROM PHOENIX BUREAU

Temperatures—	Degrees
Mean for month	73.5
Normal for October	70.6
High on October 19	96.0
Low on October 28	47.0
Rain—	Inches
Total for month	1.30
Normal for October	0.47
Weather—	
Days clear	20
Days partly cloudy	3
Days cloudy	8
G. K. GREENING, Meteorologist.	

FROM YUMA BUREAU

Temperatures—	Degrees
Mean for month	75.6
Normal for October	73.3
High on October 1, 17 and 18	98.0
Low on October 30	48.0
Rain—	Inches
Total for month	0.41
71-year average for October	0.24
Weather—	
Days clear	27
Days partly cloudy	2
Days cloudy	2
Sunshine 92 percent (322 hours of sunshine out of possible 352 hours).	
Colorado river — Discharge for October at Grand Canyon 760,000 acre feet. Estimated storage October 31 behind Boulder dam 24,290,000 acre feet.	
JAMES H. GORDON, Meteorologist.	

In Arizona everybody knows Reg Manning. He is the cartoonist who draws those funny-faced cacti for the Arizona Republic. But that merely is one of his many achievements. He draws anything and everything found on the desert — including the tenderfoot tourists. Reg not only is an artist, but also a writer. His cartoon guides are among the best sellers in this field. He is such a likable fellow personally that he sometimes has to lock the door and disconnect the telephone to get his work done. Here's the story of a master craftsman who would rather live on the desert than anywhere else on earth.



Cartoonist of the Cactus Country

By MRS. WHITE MOUNTAIN SMITH

Reg Manning

—his mark →



"**T**O me giant cacti are alive. When I come back to the desert from a trip they all stand and wave welcome—I can even see 'em smile!"

Reg Manning looked up from his drawing board, pushing the green eye shade far back on his tousled head and gazed out across the Arizona landscape. There was no levity in his statement. To him the desert and its stately sentinel cacti; its tiny friendly animals; the winds and sands that sweep across it like restless demons; the still loveliness of its cool dawns and triumphant sunsets are all a part of the glory of the country he chose for his own many years ago. With his books, sketches and cartoons, he has made them a part of daily existence of thousands of his admirers.

Once upon a time, 10 years or so ago, Reg sat with friends beside a campfire in remote Canyon de Chelly, high in northern Arizona. The moon played weird pranks with the age-old cliff palace far up in a thousand-foot ledge above the campers, and the wind sang lonely songs of the forgotten people that loved and lived and fought and died there centuries ago. On a wall could be seen the "cartoons" pecked in that sandstone cliff by these ancient dwellers and the talk turned to deciphering the petroglyphs. The whole gamut of guesses was run, some opining that they were idle doodling;

one man suggested they were the messages of a love sick swain, but Reg said the cliff was the newspaper of that period carrying gossip, society notes and political items. He continued:

"I'll leave out the political items. Wise people never deal with politics and these folk seem to have been pretty brainy when they chose a spot like this for a home. I guess those pictures are just cartoons, like mine. I'll never draw a political cartoon. I don't know anything about politics or editorials and I'm not going to get mixed up in that stuff!"

He really made that statement to his closest friend, Harvey Mott, managing editor of the Arizona Republic, and according to Harvey there are about 60 newspapers and a dozen or so national magazines now running the editorial and

political cartoons of that selfsame Reg Manning.

Reg was born 35 years ago in Missouri and came to Arizona for his schooling in Phoenix. His only art lessons were those given him by Mrs. Cordelia Perkins, head of the art department of the schools in that city. Practice certainly made perfect in his case. He drew his teacher and classmates in most disconcerting poses, and did candid camera stuff long before that phrase was coined. He drew imaginary pictures of every story he read or heard, and when there was no other subject he sketched the mountains etched so grimly against the southwestern sky. Desert plants fascinated him but most of all he loved the towering giant cacti with their arms stretched out in supplication or derision. One of the dreams of his life was that some day Phoenix, most typical of American desert cities, will use the giant cactus as a model for its street lamps.

Reg finished school and went to work on a comic strip. Time came when he considered it perfect and he journeyed east to the big editorial offices to sell this idea. In order to impress the easterners with the idea that he was a real cowboy artist he wore a 10 gallon hat and boots. The first editor he interviewed in Chicago happened to be an ex-cowboy, one who had actually punched cattle in Wyoming for 20 years. After the interview





Reg Manning's political cartoons appear in nearly a hundred nationally known newspapers and magazines—but he prefers Nature subjects on the desert, Saguaro cactus being his favorite. To him, the cacti have friendly personalities that lend themselves to laughing caricatures. The cartoons reproduced on these pages are taken from Manning's guide books of the Southwest. Photograph, courtesy Arizona Republic.

Reg removed the boots and never donned them again, but his friends accuse him of wearing the sombrero to bed. He is seldom seen without it, and Dave, the 10-year-old son wears one just as large as dad's.

The eastern tour was not a success and Reg came back to Phoenix and began to free lance. Eventually he was added to the list of Arizona Republic workers as staff photographer. That was just a step toward his goal. He managed to bring his drawings before the editorial eye so often during the next four months that when the regular cartoonist left, Reg was given a chance to show his stuff. He was to continue with the comic strip "The Roundup." And then in October, 1926, when the main line of the Southern Pacific came into Phoenix he produced a full page comic chronicle of the event and with that the Big Parade came into



being. He has never missed a Sunday since then with that pictorial story of Arizona's activities. The powers-that-be in the editorial office have grown more grey and haggard waiting for him to appear with copy before the dead line hour. He works best under pressure so he waits until the eleventh hour to begin on the Big Parade and gets it there on the third alarm.

Gradually Reg took over the task of producing editorial cartoons, and now his daily cartoons appear in an imposing list of great newspapers of America. Headlines are skipped while his followers turn to the editorial page to see "what Manning has done today." Sometimes his pictures are humorous, sometimes deadly serious, but they are always pertinent. Quite a bit of his work is done in a studio adjoining the busy

living room of his home. He must have the stir and throb of humanity around him in order to produce the best results.

He has never willingly worked at anything except drawing and writing. He says quite frankly that he actually **WORKED** once—for three days—stacking fruit in a cold storage plant. But he was fired and then he decided he could make money easier cartooning than working. The explanation is his. Cartooning as Reg does it really seems to be fun. It is so effortless, those sure swift strokes of his brush, and there is not a wasted gesture. The most delightful moment to him is when he signs the drawing with the tiny laughing cactus he has adopted as his very own signature.

People who rave about the desert heat are his pet abomination. I asked him if that wasn't just a pose on his part. I received a scorching look in response.

"I really like desert heat—when the air cooling gets too cool for me in my office I lock the door so the engineer



can't walk in and catch me at it, and then I open the windows to let in the nice 110 degree temperature. In winter I try to keep our house at desert heat by turning on the gas full blast!" He added that in the past 20 years he had seen two freak snow storms in Phoenix. He went out and played around in the snow and spent the next two weeks in bed with flu. Maybe he does like desert heat.

One of the most popular books that has ever come out of the west is the Arizona Guide book by Reg Manning, written and illustrated by his amusing sketches. He has a more thorough knowledge of that amazing state than natives who have spent their entire lives within its boundaries. In fact many of his statements sent old timers racing for verification and always there was an apology due Reg for doubting his veracity.

Boulder dam guide followed quickly after the first book, and then California was the third of the alphabet. During recent months Reg has been slaving (so he says) over four colorful booklets he hopes

to produce quite soon. One is **INDIANS**, another **COWBOYS**, a third **BAD MEN**. He is drawing pictures for these booklets, producing his regular daily editorial cartoon, keeping pace with the Big Parade, making talks to CCC camps where the boys adore him. And now and then in an idle moment he does a little fabric designing, scattering a few desert animals, or some laughing cactus, or perhaps just a few laps of the Grand Can-

yon trail around over the cloth and sketching the most intriguing sport clothes eastern dudes ever donned when they came west.

His idea of relaxation is to take Ruth, his wife, and Dave and drive out into the desert and into the thickest patch of cholla, mesquite and giant cacti and sit there while heat devils and chindees whirl around him. He will gaze at one warped twisted old Saguaro cactus in the most absorbed fashion for the better



part of an hour. The desert flora interests him more than do the Gila monsters and jackrabbits. In the 20 years he has haunted the desert he says he has never seen a rattlesnake except in captivity.

Cactus Jack Garner is perhaps the favorite national figure for Reg to cartoon, and when that old warrior removed himself and his belongings from Washington last summer and went back to Texas to "fish" he took with him at least a dozen signed originals of Reg's drawings. John L. Lewis and Senator Wheeler and scores of prominent men have asked for and received the originals depicting their activities. But not so Herr Hitler! So pointed and searching are the cartoons on his activities that all drawings by Manning are banned from Germany and all its vassal-states.

When Will Rogers was killed there was scarcely a reporter or cartoonist in America who failed to give his best efforts to producing a suitable chronicle of regret. From all those, the simply written farewell by Reg Manning has lived. Hundreds of reprints are cherished by readers many of whom had never heard of Reg Manning and the Arizona Republic.

When offers come to this artist, as they frequently do, to leave Arizona and go east where the "big money" is, here is what he says:

"The only reason that anyone is sap enough to work back east is to get money to live out here in the desert. And I'm already here, so that's that!"



Some folks go to the desert to look for rock specimens. Others like to follow the ancient Indian trails, or explore the canyons for hidden springs. But all of them will find greater enjoyment on their outdoor trips if they have a speaking acquaintance with the flowers and shrubs that grow along the way. And that is the reason Mary Beal writes about botany for the Desert Magazine each month—to help you become better acquainted with one of the most beautiful aspects of the arid region—its flowers.

Wild Hollyhocks of the Desert

By MARY BEAL

THOSE who have a flair for scientific names call them *Sphaeralcea*—but to the folks who follow the desert by-ways and tramp the arid hills just for the fun of being in Nature's outdoors Mallow or Desert Hollyhock is the generally accepted name.

Many of the species in this family are easily recognized by their resemblance to their cousins, the domestic Hollyhock.

There are at least two members of this family that every desert visitor should know—Apricot Mallow and Five-Spot or Spotted Mallow. Apricot Mallow is the species that most closely resembles the Hollyhock. Although not as large as its garden relative its habitat is widespread over the desert.

The plants often develop into bushes 2 or 3 feet high and as broad or broader, with long graceful wands of bloom. The pale-greyish herbage is harshly white-hairy, the wrinkly leaves round-ovate with scalloped edges. The terminal half or more of each wand is bedecked with blossoms of a bright apricot hue, often verging on peach-red or scarlet, about an inch broad. The deserts of California, Arizona and Nevada are enlivened by this beautiful Mallow. Mountain washes and canyon slopes inspire them to their most spectacular displays. Sometimes large colonies of them delight the eye with billows of brilliant color.

Five-Spot is a dainty little blossom, quite retiring by nature, but once seen it will never be forgotten.

Among the various species of *Sphaeralcea* that frequent the desert are the following:

Sphaeralcea ambigua

Apricot Mallow or Desert Hollyhock. A handsome perennial 18 to 36 inches high and 1 to 4 feet broad, the pale-grey herbage covered with fine, branched hairs which are star-like under a lens. The roundish-ovate leaves, 1 to 2 inches long, are more or less 3-lobed, with blunt teeth. The flowers grow in racemes ending the long wand-like branches, the corollas bright apricot, scarlet or peach-red, averaging about an inch across, the anthers purple and stigma almost black. Common on

high mesas, sandy and gravelly slopes and washes of the Inyo, Mojave, western Colorado deserts, Arizona, Nevada and northern Lower California.

Sphaeralcea rotundifolia (*Malvastrum rotundifolia*)

Known generally as Five-Spot or Spotted Mallow. The children of my home area have dubbed this beguiling annual "China Cups." The herbage is harsh but the blossoms are as delicate and charming as any fine china. Red stems 5 to 20 inches high, bristling with stiff hairs, are few-branched or occasionally almost bushy with many branches. The roundish leaves, an inch or two long, are edged with shallow scallops, often tinged wine-red or bronzy-green. The flowers are an inch or more broad, bright rose-pink with a large deep-vermilion or crimson spot near the base of each cupped petal, which has an odd side-wise curve, forming a globe-shaped corolla. Look for this attractive Mallow on gravelly plains, rocky hillsides and canyon slopes of the Colorado, Inyo and Mojave deserts and Arizona.

Sphaeralcea pulchella

Much like *ambigua*, bushy but not woody below, with white-hairy herbage, the erect dark-brown stems white-felted, the deep-green toothed leaves sometimes with 3 to 5 lobes. Narrow panicles of deep-apricot flowers, about an inch long, make this a truly handsome species. Found on rocky mountain slopes above 4000 feet from the Mojave desert to Death Valley ranges.

Sphaeralcea eremicola

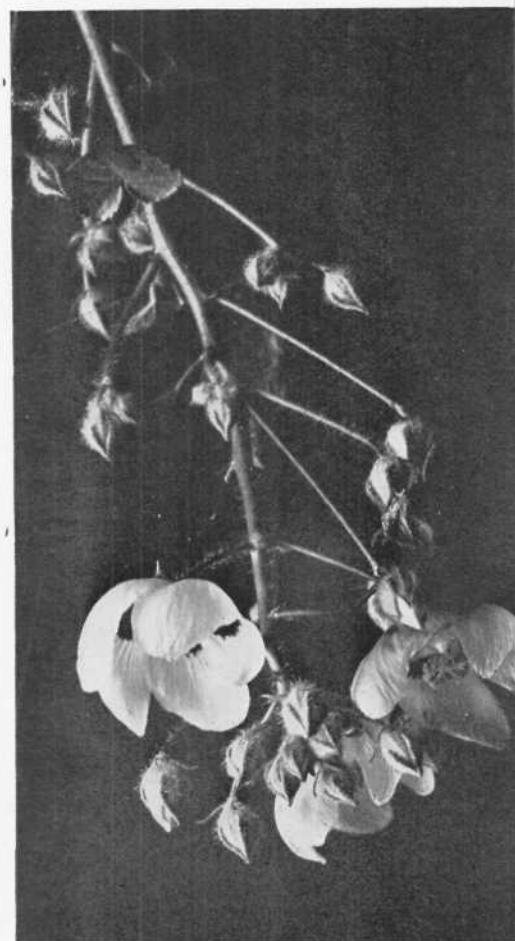
A local species from the Panamint mountains bordering Death Valley. Its several erect green stems are 12 to 20 inches high, with roundish green leaves palmately parted into 3 to 5 toothed lobes, thinly hairy. The apricot flowers, 1/2 to 3/4 inches long, form a narrow, few-clustered, almost leafless panicle.

Sphaeralcea orcuttii

A robust plant 1 1/2 to 3 feet high with several erect stems, occasionally only one, the herbage with star-branched hairs, the leaves up to 2 inches long, ovate with 3 rounded lobes. The very numerous small flowers are scarlet or vermilion. Inhabits sandy areas in the southern Colorado desert, favoring Carrizo creek and Imperial valley.

Sphaeralcea fasciculata (*Malvastrum fasciculatum*)

The showy Bush-Mallow is woody on lower parts, 3 to 10 feet high, sending up many long slender branches, the round-ovate leaves toothed, sometimes 3 to 5-lobed, densely short-hairy, especially underneath. The flowers in



Five-Spot or Spotted Mallow

short-stemmed clusters along the upper part of the wands with rose-pink corollas less than an inch long. Found in western Colorado desert, more frequent in the Santa Rosa mountains.

Sphaeralcea purpurea (*Sphaeralcea rosacea*)

A loose woody bush 3 or 4 feet high, ashy-grey, resembling *ambigua*, but the shapely flowers pink, drying rose-purple. Rather common in rocky canyons of western Colorado desert, into Lower California and Arizona.

Sphaeralcea fendleri var. *californica*

(*Sphaeralcea emoryi*)

With several erect leafy stems, woody below 2 or 3 feet high, somewhat hairy, the ovate or oblong-lanceolate leaves with one long and two small lobes, the salmon-red flowers, less than 1/2 inch long, clustered in the axils of the small upper leaves. Found in the Colorado and eastern Mojave deserts, Arizona and New Mexico.

Sphaeralcea angustifolia var. *cuspidata*

A large leafy shrub, similar to the above except for saffron-red flowers and leaves only slightly lobed. An occasional Colorado desert species extending into Arizona and New Mexico.

Sphaeralcea exilis (*Malvastrum exilis*)

A hairy annual, not ornamental but very common in the Colorado and Mojave deserts and Arizona, frequenting sandy washes and mesas. The prostrate stems spread out 4 to 18 inches, with small, toothed leaves palmately lobed and small white or pink flowers.

The Gap, described in this story, is an Indian trading post 85 miles northeast of Flagstaff along the paved highway that now leads to Navajo bridge and the eastern entrance to Kaibab forest and the North Rim of Grand Canyon. The Browns were traders at The Gap 14 years—and out of their experiences comes this story of the intimate relationship which exists between the Navajo and the white man who is his friend and counsellor. It is mere coincidence that the author of this story has the same name as the traders who supplied the information.

Traders at The Gap

By MORA McMANIS BROWN



Loraine and J. C. Brown whose experience as traders at The Gap are told in accompanying interview.

WE sat on the porch of the home of Loraine and J. C. Brown in Flagstaff, Arizona. Through the open doorway I could see the beautiful Navajo weaving which graced the interior of the home. Above the roof-tops in the opposite direction rose the white-tipped peaks of the San Franciscos—the guardians of the desert land in which those Indian rugs were made.

"The old traders are gradually leaving the reservation," J. C. was saying, and I thought there was a hint of wistfulness in his tone. "We sold our interest in the trading post at The Gap four years ago."

"But why did you leave?" I asked.

He hesitated a moment before he answered, and in the glance that was exchanged between husband and wife I saw reflected the yesterdays they loved.

"Well," he said thoughtfully, "partly because modern cars and modern roads have brought the Navajo to town. But mostly," — he raked slender fingers through his sandy hair—"because the brotherhood which long existed between the Indian and his trader is dying."

"However," he added quickly, "don't think I am longing for the 'good old days' when desert roads twisted their forlorn way through alternating periods of dust and mud. I'd only like to keep the good will that is passing with them."

"Tell me about The Gap," I urged. "About the Navajo, the tourists, and the trading and your partner, Joe Lee."

He smiled, the quiet, introspective way of a man who thinks more than he talks, and began:

"The Gap got its name from a break in Echo Cliffs, and the buildings which formed the post were left by disillusioned copper miners. Their commissary was our store, their bunkhouse our home, and the other buildings became tourist cabins and storage rooms. Besides these there were a hogan, sheep corrals and dip, and water tanks. I bought an interest in the trading post there in 1922.

"We made it clean and comfortable, and we loved the desert. But we soon discovered that only a few of the tourists ever saw it with our eyes. They'd drive up, glance over the unpainted buildings and the medley of Indians, wagons, cars, sheep and horses straggled along the base of the cliffs. They'd cast a cold look north and south along the dirt road to and from Lee's Ferry. They'd stare across the dry wash only to have their view cut by a grey-and-rust-streaked mesa. Then they'd shake their heads and mutter, 'How do you stand it in a place like this?'

"You see, they did not look beyond. I do not mean beyond the rim of Echo cliffs which stretched far northward to the famed Vermilion cliffs. I mean they could not understand that on a silent, ever-changing desert it's what you feel that counts.

"They were skeptical, too. They would demand, 'Are these Navajo rugs? Is this

turquoise jewelry really made by Indians? How do we know?'

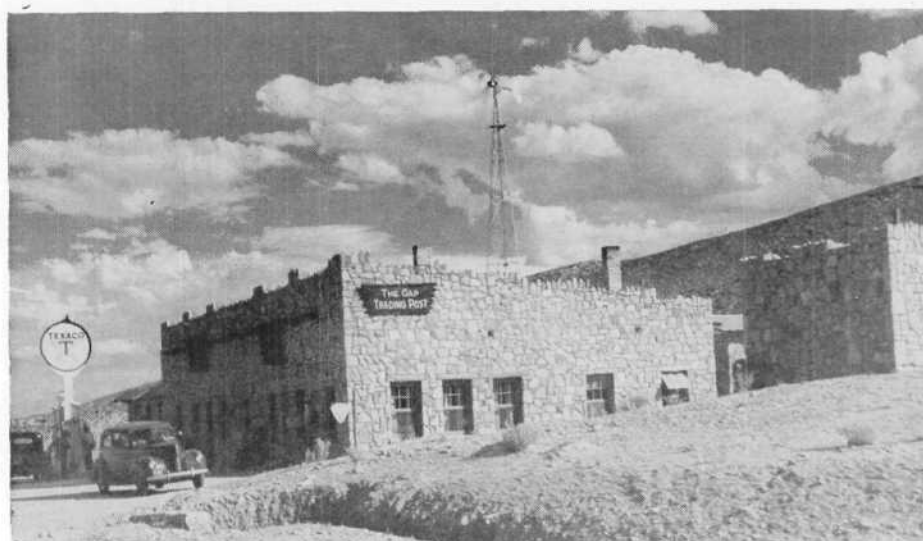
"For answer we'd take them out to the hogan where the Navajo women stayed when their men went down to Yuba City. Usually some of them would be washing wool in yucca suds, or carding and dyeing, or twisting and rolling it into yarn. Always there would be one woman cross-legged before her crude loom, working with the infinite patience of her ancestors and using their ancient tools. They made colorful pictures in their bright velveteen jackets, full skirts, knotted hair, and freely decorated with their beloved silver and turquoise. A few minutes of watching them would humble skepticism.

"Tourists came in all sorts of cars, and had all sorts of trouble. Often the trader's job became that of mechanic or doctor, or ambulance driver over the long rough road to Flagstaff. We still get letters of gratitude from some of those we helped. Others were not so grateful. But all of them brought life right to our doors.

"Joe Lee liked to tell them yarns—and what yarns! He was famous for his stories. He had the gift of being at ease with strangers. He was the great grandson of Lee who built Lee's ferry, and he grew up in this land. He was, and is, the only man I ever knew who could sit down and gab in anybody's Indian. The Navajo called him Jodie; they always sought him and so I could not talk of Joe without talking of Navajo, too.



This is the old Gap Trading post which later was destroyed by fire. Below is the new post—located on the paved highway that leads to Kaibab forest and the North Rim. The post is now operated by J. P. O'Farrell.



"When Hollywood wanted Navajo, they contacted Joe. When they filmed 'The Last Frontier' they had Joe round up 300 Indians and shot the picture at The Gap."

Loraine began to laugh. She has a soft, attractive voice which threatens to break and never does, and with a laugh as friendly as her face.

"She's thinking," J. C. chuckled, "of a joke on Joe and me . . . and about a shower of dollar bills."

"You see, Indians can be practical jokers. They framed us when they made 'The Last Frontier.' Painted and feathered, brandishing bows and arrows, they galloped their horses down the farther mesa, across the wash, and attacked the one log cabin. Round it they tore, yipping, shooting arrows, putting on a swell show. Joe and I climbed to the top of a pile of sacked wool to watch the show. It was all very exciting with firebrands, guns, and din. Then they circled closer and arrows began whizzing past our

ears. We didn't stop for a thing. We dived underneath the wool—and stayed there till the war was over.

"Never have I heard Indians laugh so loud. They even rolled on the ground with laughter. Jodie and Hosteen Bitzeen scared out!"

"Hosteen Bitzeen," Loraine whispered, "is Navajo for Mr. Thin Man. And I,"—her eyes twinkled behind her glasses—"was Hosteen Bitzeen Bezhone Neskah, Mr. Thin Man's Fat Squaw. They looked us over and named us."

J. C. smiled reminiscently. "The dollar bills," he continued, "were something else. You see, Hosteen Navajo had ideas of his own. One of these was that the only proper pay for a day's work was dollar bills at evening. His next thought was to convert them into things. And he had his own system of buying. He'd come into the store and stand. After while he'd point. We would wrap the item. He'd pay and take his change. Then he stood, pointed, we wrapped, he took

his change. If he bought 20 things, the procedure was the same. So, while they acted in that picture, each night found a crowd of Navajo, each desiring to spend three one-dollar bills, crammed into a little desert store. It was pandemonium. I can still see that avalanche of paper money. Joe Lee finally nailed up a gunny sack to hold it."

J. C. paused and turned his eyes to the San Franciscos, home of the Thunderbird, Hercules to that clean desert sky. "As for trading," he went on, "in theory it is exchange; in our case the exchange of food, clothing, and necessities, for sheep, cattle, wool, and things which tourists buy. But in practice it was less simple, because the Navajo's income was seasonal, but his needs were not. Hence our trading involved heavy credit. I wish those who think that traders are all out to beat the Indians could have seen our ledgers. We have had as much as \$9,000 in credit on our books at one time, and no security except the Navajo's word. We asked no more. When his produce was ready, he always paid with it. Then credit began again.

"It was only when he desired cash that he drew upon his 'savings'—his silver and turquoise adornments. These he deposited with us in exchange for money for a given length of time. We were responsible for them, and kept them locked up until about a month before the time was up. Then we put them in a certain case where they were exhibited as reminders. Usually he was able to redeem his treasures.

"You see, we were dependent on each other, and this created a bond between us. As a result we traders felt a sincere responsibility. And the Indians turned to us with confidence when trouble loomed.

"Poor souls, they had plenty of it—tuberculosis, blindness, a land of scarcity and thirst, and pitiful slavery to the gods of fear. To them a hogan in which there has been death is forever cursed. Hence, never if they can help it, does a Navajo die in one. Many times have Joe and I carried dying Navajo from hogans. Many times we have made a shallow grave and laid their dead away. Often we have pushed and dug our way through snow to Flagstaff when their need demanded, or when supplies were low.

"That," he ended, "is what builds brotherhood and trust. And the best that's in a man responds to it."

"And you," I turned to Loraine. "Did you find time heavy on your hands?"

"No," she answered. "I had a house to keep, and tourist cabins, and extra meals. Besides, I took care of the dogs and chickens, and my patch of grass and sunflowers. And there were always Navajo around.

"They came on horseback and in wagons at first. They brought in sheep or cattle or other things to trade. Periodical-



This daughter of the Navajo has a pet which any child would love to own.

ly, because they were compelled to, they drove their flocks in to the sheep-dip. The women had that job. They pulled their sheep along the dip tanks with crooks looped around the woolly necks. And how they quarreled at it!

"They liked boric acid, too, and came to have me drop it into eyes sick with trachoma. My sewing machine was always in demand. At first I used to let them come inside to sew, but after I learned how much more picturesque than hygienic they were, I took the machine outside.

"Their sewing was beautifully done. On their finished mocassins, sewn by hand with gut, you could not see a stitch, and they used the machine as skillfully. Those jackets of the women, made of velveteen or plush, are satin lined, have no unfinished seams, and much hand work. Then they put them on, and leave them on . . . and on . . .

"There was one tall, handsome Navajo, Hosteen Nez Tsosi Begay, a proud Indian seen often on Santa Fe posters and in moving pictures. He was so fastidious that he came to the house to supervise his lady's sewing. He studied every stitch, and ordered off a cuff. I shall never forget the tight-pressed lips of that woman, nor the scowl on her face as she jerked out the stitches. I had to laugh. She turned her scowl on me then, but she could not hold it. She burst out laughing, too, and then the storm was gone.

"But the most memorable event of all," she said, with a deep note in her voice, "was the trouble brought on by a perfect rug."

"But," I protested, "I thought they never wove perfect rugs. Doesn't there have to be some imperfection? Isn't there always one loose thread at a corner for the devil to escape?"

"Yes," Loraine agreed, "but Hosteen George Bancroft's wife did weave a perfect rug, and she left no untrimmed thread to let the 'chindee' out. Then she sold the rug and it was carried away.

"And so, the Navajo will tell you, the chindee, unable to get out of the rug, entered into its weaver and made her sick. First it was toothache, in June. By late autumn it was paralysis. It was then that Haska Bancroft, her brother-in-law decided to have a Yeibichai dance to heal her.

"The ceremony lasted 10 days, five days for friends and relatives, five days for all the Navajo who wished to be Haska Bancroft's guests. Each day two medicine men conducted sings. Each night dances were held for her. On the last three days great sand-paintings were made, leading to the final night's religious climax.

"This happened right at The Gap.

The sand paintings were made in the 30-foot community hogan which was put up across the wash at the same time that we built the new store there and moved the lunch-room over, when highway 89 went through to connect with Navajo bridge.

"I watched the Navajo prepare the sand. They brought in rocks of different colors from the Painted desert, broke them up, and ground them meal-fine with stones. They put the different colors in little sacks which they kept beside them as they 'painted.' A dozen Indians did the work which two medicine men directed. Each day's painting was different. The one I watched was 'The Corn Dance.'

"It was done entirely by sand run through brown fingers, and it was as true and even as the brush-strokes of an artist. They worked earnestly and skillfully. This was their third masterpiece in three days. When each was finished the sick woman was brought in and laid upon it. Then the medicine men conducted their healing ceremonies. When they were completed, the painting was destroyed. I watched spellbound.

"In the meantime, other Indians had hauled in stacks and stacks of wood for campfires for the nightly dances. There were 1500 Indians present the last night. I wish I could re-create for you that picture: A hundred blazing fires, the desert stars, Indians squatted around the fires, babies crying, mothers nursing them, dogs barking, smoke so thick it burned

our eyes, and a 'waiting' feeling in the air.

"The dance began at nine. Ten Indians danced. They came out stripped to the waist, painted with mud. They wore feathers in their head-gear, masks on their faces, cedar twigs about their necks, and short brightly-colored skirts above the skin-clad legs. Rattling gourds and chanting they went up a long, cleared space to the hogan where the sick woman lay. There each one turned completely around, let out a dreadful whoopee to scare the chindee away, and then began the Yeibichai dance. While they danced the patient came to the door of the hogan wrapped in her blanket and with a basket of meal in her hands. The medicine man sang his incantations. She repeated them after him. This lasted about 20 minutes. Then the squaw sprinkled corn meal on the dancers and re-entered the hogan. The dancers put on their shirts, and continued to dance and chant to gourds and drums until dawn.

"I regret to say," she finished, "I was so lost in the ceremony, I do not recall how the woman responded to the treatment, but I do know of healings which have resulted from their faith in this dance. I know, too, that these ceremonies are as sacred to them as are the religious rites which we observe. That's why I sometimes question our right to judge them."

"Perhaps," J. C. pondered aloud, "that is the key to this 'brotherhood.' We sort of came to understand and to sympathize with each other's viewpoints. Perhaps that's what drove — and still drives — back-country traders over unbelievable roads to keep up their end of the bargain. Money could not compensate for some things they have done. I'd stake my life that practically all their ledgers would tell a tale of service.

"Remember I'm not claiming that all white men have been honest in their dealings with Indians. I'm discussing men I know. But things have changed. The Navajo have cars and trucks. They like town. They find fire-water there, and draw into their thinking the suspicions which taint even desert air. Besides, drought, unwanted supervision, and relief, have undermined their native stability. Like many of their white brothers they think too much in terms of getting, too little in terms of giving. And so the brotherhood is dying. That is why we left The Gap."

Silence fell among us, broken only by the wind in a big pine tree. But I was unaware of silence or wind. It was night for me, and I was on the Painted desert, seeing in the glow of a campfire the golden highlights on bronze faces, seeing, as the Indians moved, the luster on velvet jackets and silken headbands, fascinated by the way the light was caught and reflected by the silver and turquoise

of necklaces and bracelets and concho belts . . .

"And now that you are no longer there," I asked, "what do you miss most?"

"I believe," Loraine answered thoughtfully, "I miss the Indian songs. As I went about my work I would listen for the sound of hoofs, and high-pitched voices winging out their pagan chants . . . And at night to hear them up on Echo cliffs, one voice, two, and then a chorus, all ending suddenly, as if a knife

had cut the sound . . . it is unforgettable."

J. C. added quietly, "I get lonesome for it all—tourists, Navajo, desert friends, and the old post at The Gap. Yes, on summer nights lying in a tent screened clear to the ridgepole so that nothing could hide from us the universe of stars . . . to be awake in that great silence free from the turmoil of the world . . . and then in the darkness to hear that wild free singing . . .

"That, not money, is a trader's pay."

TRUE OR FALSE

For the seasoned traveler or resident in the desert country these questions are an excellent test of knowledge. For the student or tenderfoot they are a lesson that covers a broad field of information—geography, botany, mineralogy, history, and general lore of the Great American Desert. If you answer 10 of the questions correctly you are better informed than the average person. Fifteen correct answers make you eligible for the Royal Order of Desert Rats. Those who score more than 15 belong to that superior group of Sand Dune Sages. Answers are on page 28.

- 1—Woodpeckers often peck holes in the trunks of Saguaro cacti and make their nests inside. True..... False.....
- 2—Following his exploratory trip up the river in 1857-58 Lieut. Ives reported that the Colorado river was navigable. True..... False.....
- 3—The tidal bore at the mouth of the Colorado river sometimes reaches a height of 12 feet. True..... False.....
- 4—The Rainbow Bridge national monument is in Arizona. True..... False.....
- 5—The springs from which Palms Springs, California derives its name come from the ground at a temperature of 40 degrees. True..... False.....
- 6—The roadrunner will attack and kill a rattler. True..... False.....
- 7—As far as is known no human beings inhabited Death Valley before the white men came. True..... False.....
- 8—The man who killed Billy the Kid was Sheriff Pat Garrett. True..... False.....
- 9—Desert willow only grows around the waterholes. True..... False.....
- 10—A chuckawalla lizard is more venomous than a Gila monster. True..... False.....
- 11—Stalactites found in the caves generally are composed of gypsum. True..... False.....
- 12—The site of old Fort Callville is now buried beneath the waters of Lake Mead. True..... False.....
- 13—On his trip from Tubac to San Gabriel in 1775-76 Juan Bautista de Anza and his colonists crossed the California mountains through San Geronimo pass. True..... False.....
- 14—A coyote can outrun a jackrabbit. True..... False.....
- 15—The Hatch bills passed by the present session of congress were sponsored by and named for a U. S. Senator from New Mexico. True..... False.....
- 16—The Mormons used the desert plant Ephedra for making tea. True..... False.....
- 17—Greasewood or creosote bush never grows below sea level. True..... False.....
- 18—Indian tribesmen who sell beadwork at the Santa Fe railroad station at Needles, California are of the Hualpi tribe. True..... False.....
- 19—The Bullion mountains of California may be seen from Twentynine Palms. True..... False.....
- 20—The old trail known as El Camino del Diablo (Devil's Highway) crossed the Colorado river at Yuma. True..... False.....

They Got Their Geodes

Chuckawalla mountains in the Southern California desert are happy hunting grounds for geode hunters—but not all the hunters come home with pretty rocks. Here is the story of a couple of novice rockhounds who really did not know a geode when they saw one. But they were not so dumb, at that. They brought home some specimens—and you'll laugh when you learn how they got 'em.

By BELLE C. EWING

DESERT Steve Ragsdale wrote to his wife, as follows:

"Dear Lydia—

Relative to your proposed trip with Mrs. Ewing, in search of geodes, I consider it very unwise, to say the least. I grant, it would be very lovely if you two women succeeded in emulating an old experienced and toughened Desert Rat prospector, by leaving the beaten trail and going off into wild and uninhabited desert areas, and without mishap return with a bountiful supply of gorgeous geodes. A beautiful visionary picture, indeed . . .

If human life, health, and well-being truly has any intrinsic value, then better that you and Mrs. Ewing pay a hundred dollars each—or even a thousand dollars—for geodes or pay a like sum for the services of an experienced desert guide who at least possesses the physical fitness and knowledge to repair your car—if need be—or walk back to civilization for food, water and transportation for you.

I dislike very much, my dear, to be an old long-nosed joy-killer. Nevertheless, I advise and hope that you and Mrs. Ewing will not go on your geode hunt as proposed, without at least taking along with you an able-bodied man to render services in the event of need. Though, of course, if preferred he could remain in the car and upon request carry the pretty rocks from their probable distant beds, after you two little girls, having had the pleasure of finding them and making your selections.

I am sending a copy of this letter to Mrs. Ewing, lest I—like many faint-hearted fools I have known—might have occasion for serious regrets. And whimperingly whine, 'I'm to blame, for I knew better, they did not. And if—etc.—I could do it all over again, I would do thus and so—'.

I INSIST, IT IS BETTER TO BE SAFE THAN O! SO SORRY!

NUFF SED,

Your husband, Desert Steve."

Of course, Desert Steve was perfectly right—Lydia and I had no business going off on a wild geode chase. We waited until his suspicions had been allayed, and — knowing that he was safely ensconced in his trailer house away from the Ragsdale home at Desert Center—I pulled in unobtrusively one evening in late March. (The town of Desert Center, California, is owned by the Ragsdales, and lies out on the Colorado desert half way between Blythe and Indio.)

The "gang" at Desert Center were exasperating.

"So, you are going to be Desert explorers after all?" teased Stanley Ragsdale. "I'm laughing up my sleeve at you!" And he suited the action to his words. "Why, you women wouldn't know a geode if you met one face to face! I don't believe you even know what a geode is!"

We assured him that we knew a geode was a bubble of lava having a cavity filled with crystals or mineral matter. And come what might, we were going after them!

We arose the next morning at 4:30. The chef had packed a nice lunch for us. In addition to this, we carried a

thermos jug of water, cans of tomato juice, oranges, lemons and tangerines, a loaf of bread, some canned meat, coffee and a tin to make it in. We carried blankets, too, in case we should break down and have to spend the night out. We had a shovel with us to dig out if we should get stuck in the sand.

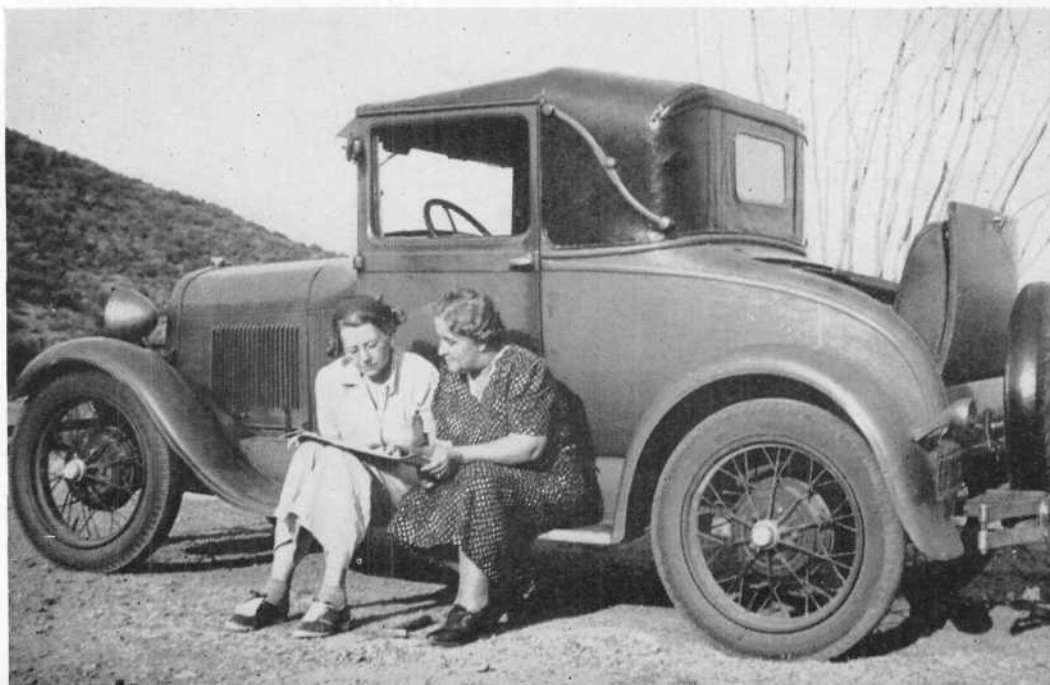
The stars which in the desert lay close to the earth, had dimmed when Lydia and I left the security of Desert Center and started out on our adventure. We skimmed along the highway just as the sun burst from behind crumpled desert hills. A faint mauve haze softened the jagged peaks of Coxcomb mountains, rimming the horizon of a sky as pale and clear as a flax blossom. Cottony clouds drifted overhead. The scene was too lovely and peaceful to have any threat of evil in it.

We passed Hopkin's well, then turned into a sandy road marked "TO WILEY'S WELL." The grimness of the desert was obliterated by verbenas, primroses and desert gold. But how long this will be, I do not know, for we soon passed huge droves of sheep, and where they had grazed the warm, bare breast of the desert lay exposed, devoid of the flowering robe that is her's by right.

The road was rough, but passable in a light car. We wound among greasewood and flowering incense bush. We halted at Wiley's well. The water here is not inviting, for the well is open. We went on, driving through washes, around boulders and through the sand. The palo verdes were in bud, and ocotillos lifted thorny arms, blood-tipped, to the sky.

We were now on the old Bradshaw stage route. Along this trail had come gold seekers and adventurers, tenderfeet

Here's is a snapshot of Belle Ewing (right) and Lydia Ragsdale as they planned their trip. The map was all right—but unfortunately it did not give the location of the black hill where the geodes were located.



and sourdoughs—bartering their lives in the quest for "color."

One thousand white yucca lily-bells on a single stalk, trembled in the gentle breeze that moved up this canyon in the Chuckawalla mountains. A crimson cactus flower invited the wild bee and the feast-loving hummingbirds to seek nectar within her flowery breast. Beyond us, the peace of the desert stretched to far-off horizons, lulling us in its embrace.

We came to the stone and adobe ruins of a house and stable, said to have been a posthouse for the Bradshaw stage in the early days. Now a cholla cactus grows in the doorway, and a sleepy-eyed lizard lay basking in the warm sun on a tumbled wall. Under an ironwood tree a desert tortoise lay asleep.

We drove on, past barrel cactus with the protective armored case, storing life-saving waters within its heart, past wild cucumber-draped bushes, starred with a million white blossoms, from which the butterflies were taking their toll. High overhead a bird swam in the sapphire sky.

We came to the sign post where an old prospector had told Lydia to leave the car. We stopped long enough to eat some sandwiches and drink hot cups of fragrant coffee. Then with gunnysacks over our shoulders, a hammer in one hand and a trowel in the other, we started for the geodes.

"The miner said to go around a black hill," Lydia recalled, "but these hills are all black!"

We went over one black hill and around another, picking our way over float. We saw what, not so long ago, had been mud pots, the broken bubbles still visible. Here the earth had trembled and new mountains had been born. We gathered desert roses (quartz crystallized



With prospector's hammers and bags, they looked like honest-to-goodness rock-hounds as they started for the Chuckawalla geode field.

in the shape of queer pinkish flowers) and agates, but alas! no geodes! Over the black hills we trudged, hitting with hammers and prying with trowels until the sun began his descent in the west.

Weary, thirsty and hungry we returned to the car. Stanley Ragsdale was right, we probably wouldn't recognize a geode if we stumbled over it.

"We might stay all night and look again tomorrow," Lydia suggested hopefully.

But clouds hung over the mountains and a cool wind carried the threat of rain. We had no tents or camping equipment, except blankets. Desert Explorers, indeed! How the gang at Desert Center would laugh! I looked across at Lydia:

"Did you ever hear of a man going fishing and buying fish? I asked.

Her merry brown eyes filled with laughter. "But how—?"

"John Hilton, the artist, sells geodes at his shop at Valerie's corner. He sells them to tourists. If we could get over into Imperial Valley—"

When Lydia could get her breath, she said:

"My son, Thurman, lives at Niland. We could stay all night with him, if we can get there. Then drive over to Johnny Hilton's in the morning. I don't know anything about the road, but I've been told that the last half is better than the first part."

Over our heads the sign read, 37 miles to Blythe—it was about the same distance to Desert Center—and 36 miles to Niland.

"All right, let's go!"

By this time it was 15 minutes to five. I am used to driving all kinds of roads, but never was there such a road as this one! We found out later that it had been washed out in a cloudburst. Down gullies and through sandy washes—bump—crunch—bump! Around boulders, into sand—the wheels spinning. Rain com-

All day long they hammered and pried — but no geodes. And when nightfall came they decided that maybe Stanley Ragsdale was right — perhaps they didn't really know a geode when they saw one.



menced to fall. We had visions of spending the night here alone in the depths of the somber Chuckawallas. But grimly we went on, making five to six miles an hour in low gear. Over the Chuckawallas and into the Chocolate mountains. It grew dark, there were no stars, no moon, only two fools winding through ghost trees in the desert night.

But there are compensations for every predicament. Here were no cops. Only jackrabbits which gazed at us with startled eyes. Perhaps the strangest thing about the whole adventure was that Lydia and I were thoroughly enjoying ourselves! Even as we slithered down into an unknown abyss, we giggled. We laughed as we nosed up the other side. If Steve could only see us now! We passed Beal's well. Here is good water for the desert traveler. The rain had stopped. Then far away we saw a light—Niland! Never had we seen a more welcome sight, for we had seen no one, passed no human habitation since we had left highway 60, just after dawn. It took us three hours and five minutes to go 36 miles. It was 10 minutes to eight when we reached Niland.

But our troubles were not over. We could not find Thurman, nor could we rent a room. The All-American canal was going through at this time, and every tent and cabin was occupied. At 10:30 we had hot cakes and coffee at a roadside cafe. At 12 o'clock we found an unoccupied cabin at Brawley. Here Lydia phoned Desert Center, telling Stanley not to send out a searching party for us.

We left a call for six in the morning. Soon after, we were flying along the boulevard, following the Salton sea.

We found John Hilton at home. He sold us a dozen geodes, enjoying the joke. And we were off again.

We took in two other places of interest on our way back to Desert Center. We left the highway and followed a wash up Painted canyon, winding among eroded cliffs of blue, purple, rose, green and burnt sienna, until we came to the end. Here three waterfalls tumbled over smooth green rock, soon to sink and disappear into the sand below.

Evening was approaching as we drove into Desert Center.

"Here come the Desert Explorers!" shrieked the gang. "Where are your geodes?"

"In our gunny sacks!" Lydia and I were nonchalant.

"Yeh, you've got geodes! In your sacks, you say!" "Look and see, if you don't believe us."

"Why, I'm the son of a sea cook—they have got geodes!"

Valerie Jean's

CHRISTMAS GIFT SUGGESTION

DATE . . . Cake

DATE . . . Candy

DATES . . . Stuffed Jumbo

DATE . . . Plum Pudding

DATES . . . In Brandy

DATE . . . Nut Spread

DATE . . . Butter

DATE . . . Crumbles

DATE . . . Flakes

DATES . . . Finely ground for use as sugar
Bread DATES

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. . . prepared for cooking—
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Prize winning package . . . containing 3 pounds . . . stuffed dates . . . date butter roll . . . and an assortment of the finest dates grown.

At Valerie Jean's Desert Oasis you will find a rare assortment of dates that cannot be found anywhere else in the United States. **WE HAVE DATES IN THE COMPLETE PRICE RANGE.**

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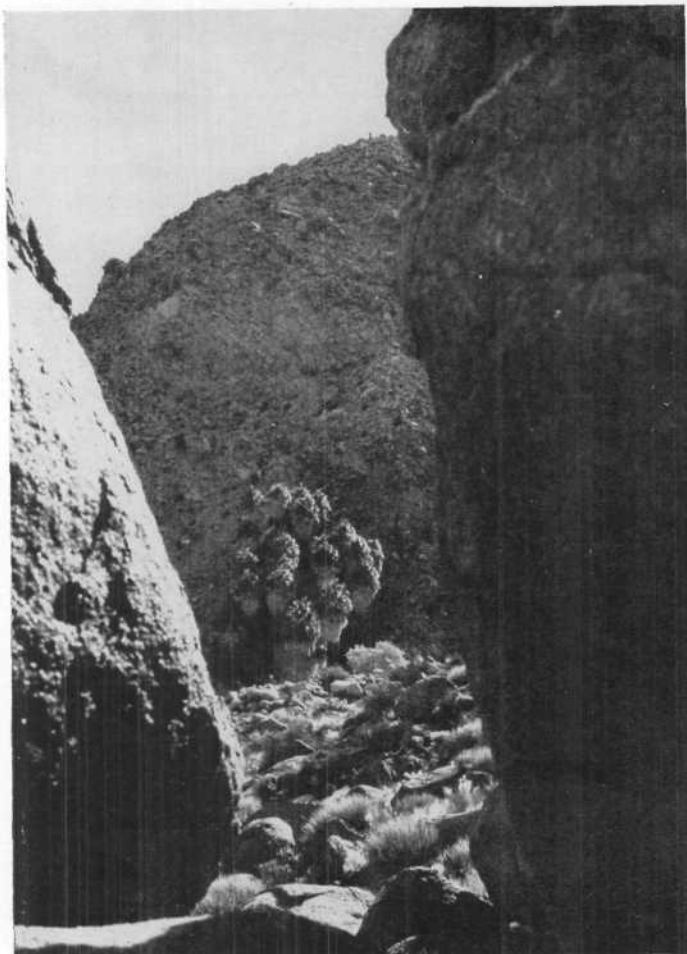
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The visitor hiking in over the old Indian trail catches a rare view of the oasis as he passes a gap between two boulders.



Harlow Jones (left) and Jerry Charleton were photographed as they stood on a boulder in the heart of the oasis.

Trail to 49 Palms

By RANDALL HENDERSON

PERHAPS the ancient tribesmen who lived and gathered their food supply on the Southern California desert could explain the origin of the Washingtonia palms which grow in 49 Palms oasis.

But the Indians kept no records—at least none that can be deciphered by this generation of human beings. And so we can only accept this oasis for what it is—one of the most picturesque of the many natural watering places on the desert of the Southwest.

Harlow Jones and Jerry Charleton of Twentynine Palms were the guides who first led me to 49 Palms, hidden away in the heart of the mountains that extend across the north side of the Joshua Tree national monument.

We drove up Phantom canyon. The rocky road came to a dead end. From the cove where we found parking space, a little-used trail led up a steep slope toward a ridge that hemmed us in on the south.

It was a 15-minute climb to the top of the ridge. We paused for a rest when we reached the summit — and then I caught sight of the oasis. It was a mile away, on the far side of a great amphitheatre-like basin in the range.

The air was clear and the green fronds of the little cluster of palms, growing in close formation on a precipitous hillside, stood out in deep rich color against the barren grey-granite background of rocks.

There are over a hundred native palm

Hidden in a remote canyon in the mountain range that separates California's Mojave and Colorado deserts, is a palm oasis of such rare charm that makes even the seasoned desert rates want to write poetry. An old Indian trail leads to the palms—and it is a place you'll want to visit if you don't mind scaling the steep hill that gives this scenic water-hole its seclusion.

groups in the arid region of Southern California, and I have visited nearly all of them. But I recognized, a mile away, that here was one that from a scenic standpoint was outstanding.

My trip with Harlow and Jerry was two years ago, and since then I have come to regard 49 Palms as one of the three most picturesque palm oases in the Southwest. The other two are Seventeen Palms in the Borrego badlands, and Hidden Springs palms in the Oro-copia foothills.

From the top of the ridge we followed a winding trail down into the canyon where a generous spring flows from a little cave at the foot of the palms. We lost most of the altitude we had gained in climbing the ridge.

A jungle of small vegetation grows



This picture was taken from the oasis looking down 49 Palms canyon and across 29 Palms valley toward the Bullion range.

around the spring but we broke through into a little clearing. It is one of those places where you just sit on a boulder in the friendly shade, and relax and marvel at the picture Nature has created out here in a remote corner of a barren desert terrain.

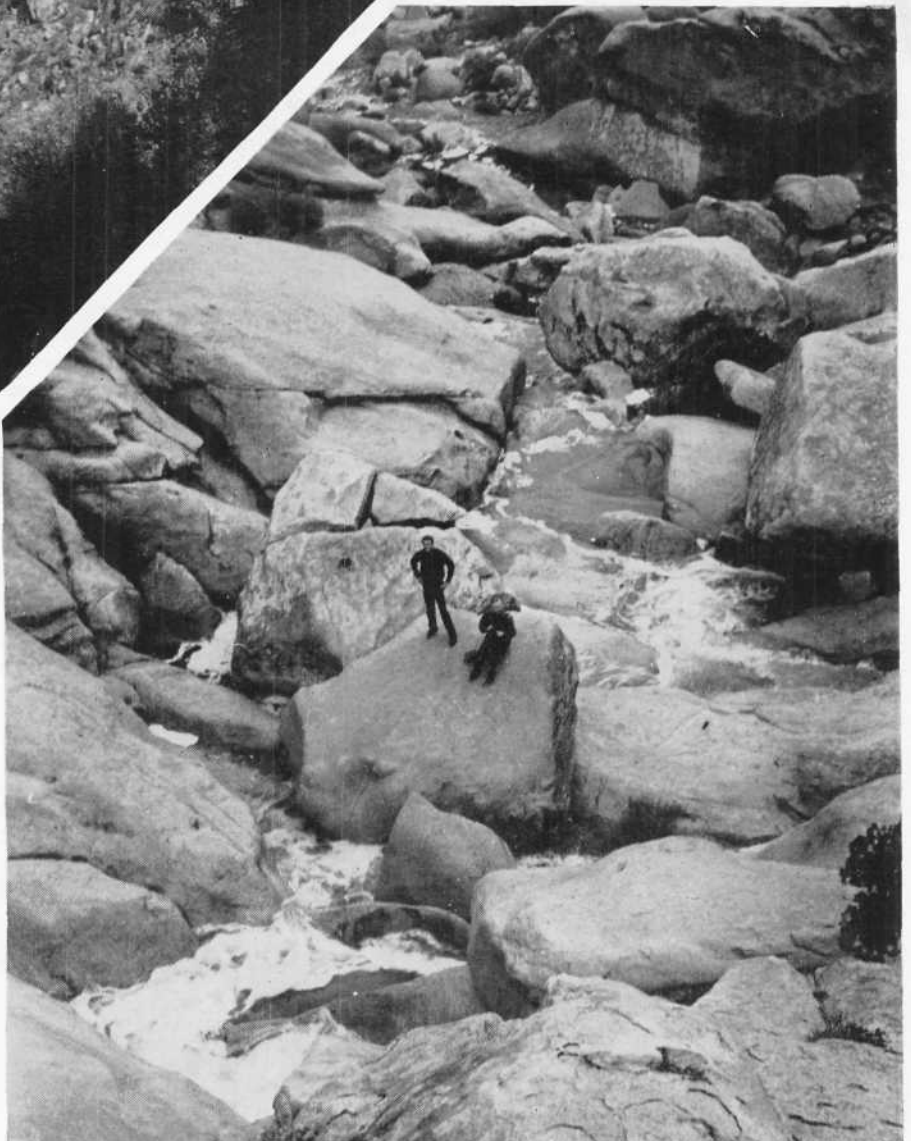
The veteran trees in the group had been burned at some previous time. Later I learned that the fire was in 1925, and that the source of the flames is still a mystery. But fortunately, fire seldom kills a palm tree, and in this spot where water is abundant the trees are fresh and vigorous. While the new skirts they have acquired are somewhat abbreviated, Nature evidently has been working diligently at the job of restoration.

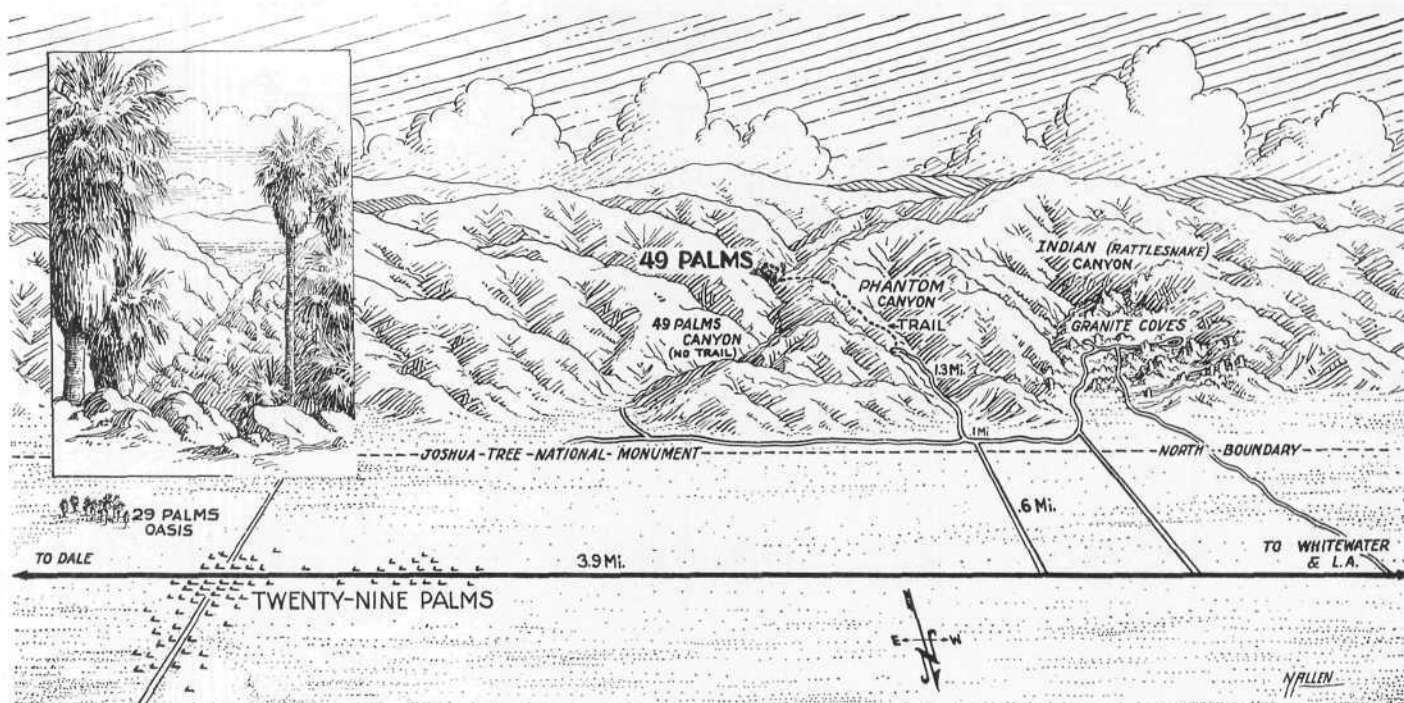
Of course we counted the trees—to be sure the old-timer who gave them their name had not missed any. Our figures

didn't jibe with his. But that is no reflection on his accuracy, because the name probably was given the oasis many years ago, and Nature is always changing her landscape. We found 40 of the veteran trees still standing. There are an additional 15 trees of a younger generation ranging from three to 15 feet in height. They are vigorous youngsters—worthy of noble parents. Hundreds of sprouts just a few inches in height give assurance that this oasis will grow luxuriant through the years.

We were not the first humans to visit this place. I did not search for Indian artifacts, but I am sure that dark-skinned aborigines camped here long before the white men came this way. The seclusion of this oasis, the fine spring of cool water, the food supply both in the fruit that grows on these trees and in the piñon trees higher on the range — these

Rattlesnake canyon is just a dry boulder-strewn arroyo until one of those rare desert storms sends a torrent roaring down from the mountains.





are factors which made this a perfect site for an Indian camp.

More recently, a courageous desert mother and her three children dreamed of a permanent home to be built among the rocks near the spring—and spent many months of arduous labor here before circumstances made it necessary to abandon their plans.

Louie Jacobs of Twentynine Palms first told me the tale,

and it was later confirmed in more detail by Mrs. Roland Wilson, who as a girl of nine, was one of the children in the story.

In 1922 Mrs. Bernice Tucker, a resident of Twentynine Palms settlement, learned about the 49 Palms oasis from an old prospector. She was so impressed by his story she decided to see the place for herself. She climbed the rocky canyon and while she rested in the shade of the palms the idea of a cottage there by the spring, with perhaps some extra water to sell to the miners.

Her three children, Mary, Hugh and Nelson, ranging from nine to eleven years, were enthusiastic for the plan, and so it was decided to start work.

Mrs. Tucker filed on the spring water, and then began a labor that continued at intervals for 10 years. The footpath which leads over the hill from Phantom canyon was an old Indian trail, and this was the route they used to reach the oasis. They packed cement and tools on burros. Part of the time they camped at the spring, but when the children were in school this was not practicable so on weekends they drove up Phantom canyon in a buckboard drawn by the burros and then unharnessed the animals and continued on the foot-trail.

There is no record of the trips made over that 1½-mile route, but between 1923 and 1933 it totalled many hundreds. A rock and cement dam was built below the spring, part of the area was cleared of underbrush, and then work began on the road which was to connect with the desert plain below. Camping at the spring was fun so they began their road at the upper end rather than the lower.

The road never was finished, nor was the cabin built. Time and funds were too meager. But it was a glorious dream nevertheless, and one that provided healthful spare-time occupation for the children for years.

Later, when the young Tuckers grew up and went their separate ways, Mrs. Tucker continued to hold her water rights. She wanted this oasis protected against exploitation—and her good faith is evident in the fact that when the U.S. Park service took over this area she relinquished her rights.

The dam was well constructed. It has withstood the storm torrents of all the intervening years and while the pool is now partly filled with sandbars and tules, a few hours of



29

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work would restore the idyllic little lake that was part of Bernice Tucker's dream.

Up on the sidehill above the oasis are short remnants of the roadway that was to connect the oasis with Twentynine Palms valley. The road starts from nowhere and ends against a barren slope—there are just two short fragments of it. But every foot of it represents hours of arduous work with pick and shovel and crowbar. It was a good road, as far as it went.

Mrs. Tucker and Nelson and Hugh are now residing in New York, and Mary is Mrs. Roland Wilson of Twentynine Palms, with children of her own.

On my last trip to 49 Palms oasis this fall I went in over the old footpath, and returned down the rocky canyon that leads to the floor of the desert below. There is no trail in 49 Palms canyon, and I would recommend this route only for those who like to scramble over huge boulders. It is about two miles from the main highway to the oasis over this route, compared with 1½ miles by trail from the parking cove in Phantom canyon.

Perhaps some day a trail will be built in the canyon. Thoughtless early settlers in the Twentynine Palms area used the mouth of the canyon as dump for their old tin cans. There's a little job for the Twentynine Palms chamber of commerce. That canyon is too fine a scenic asset to be marred by the refuse of our tin can age.

As a sidetrip on my excursions to 49 Palms I usually drive into the Granite coves west of Phantom canyon. Nature created a hundred perfect picnic and camping nooks in that area—although now that it is within the bounds of the Joshua Tree national monument there no doubt will be rules limiting the camping to certain zones.

Great slabs and dikes of weather-worn granite are strewn over this area in helter-skelter fashion, forming a fantastic labyrinth with unlimited possibilities for recreation and exploration. It is a natural park.

At the eastern end of the cove the

hiker may follow the precipitous course of a canyon far back into the Piñon range. Rattlesnake canyon, the old-timers called it, although I have yet to meet one who had ever seen a rattler there. Recently a sign has been erected on the main highway marking it as Indian canyon. So you may take your choice, according to your feeling about reptiles. You won't be bothered by snakes in either case.

Once I visited this canyon in the early morning after it had been raining all night. A great torrent of water was tumbling down over the boulders. It was a wild and yet fascinating picture. It is a thrilling experience to see storm water roaring down these desert waterways, tumbling huge boulders along as they come.

In the spring of the year, after there has been a generous winter rain, this entire area is a wildflower garden of exquisite coloring. Yucca grows here, and on the higher levels, agave and nolina. Many species of cacti are found, including beavertail, buckhorn, hedgehog, an occasional barrel, and many cholla. Roads wind around among the rocky parapets and it is easy to imagine this as a perfect hideout for the outlaws of an earlier period.

49 Palms and Granite Coves and Rattlesnake canyon are just three of a hundred interesting areas in the great Joshua Tree national monument. Much of the monument area is still uncharted, even by the National park service. But it is a region that has tremendous interest for those who have "discovered" the desert as a place for relaxation and recreation.

And if you will take the steep trail that leads over the hill and down into 49 Palms oasis, you'll feel just as Bernice Tucker did about it. You'll lo! in the shade and wish you could have a little cabin here where you could come and relax and laugh at the far-away world and its petty troubles.

Visit Joshua Tree National Monument



Footsore, weary, thirsty, the Mormon pilgrims were hopelessly lost in the Mojave desert. When suddenly—

"Look, brethren! The sky is no longer like brazen brass. God has sent the clouds. It is as if the sun stood still—as Joshua commanded. These green trees are lifting their arms in heaven in supplication.

"We shall call them Joshua trees! Soon we will reach the promised land."

"Since that day uncounted pilgrims of many faiths have found rest and peace and comfort in the shade of the Joshua trees. The desert wind whispers softly and always with a note of mystery through their ragged fronds.

"Seen against a background of lilac, when the sun's heat dances in a shimmering haze at noontime, or in the quiet dusk of a desert evening when the sky changes from turquoise to gold—the Joshuas are always alluring, mysterious, beautiful."

29 Palms rich in Scenic Wonders

This winter—or over the weekend—make up your mind to visit what desert traveler's call "A fantastic Garden of Eden." And while you are here see these points of interest, too: The Morongo, Yucca and 29 Palms Valley, the Old Dale (gold mining) district, the rich gem fields, and many others.

For specific information and a FREE copy of the DESERT TRAIL, write to the Secretary, Chamber of Commerce.

TWENTYNINE PALMS

* Quoted from "How Joshua Trees Were Named" which appeared in the DESERT MAGAZINE for September, 1938.



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Echinocactus Polycephalus

By GEORGE OLIN

The armored mounds of the common niggerhead cactus are conspicuous features of the southwest deserts. They may be seen hugging the rocky hillsides where the maximum of sun strikes them. When the heat waves quiver over the desert floor and are reflected from the black lava along canyon walls, the niggerhead, encased in heavy spines, appears unaffected.

It differs from the common barrel or Bisnaga most strikingly in its habit of growth. While the Bisnaga is a solitary plant, the niggerhead usually forms mounds, many as large as six feet in diameter and containing 50 or

more heads. It is this characteristic which the species name suggests, polycephalus meaning "many-headed."

Though not an abundant species, it is scattered over a wide range, in Southern California, western Arizona, Nevada and Utah. It is most commonly found in areas between 3000 and 4000 feet elevation where the rainfall is not more than 3 inches. Beautiful specimens may be seen on the higher hillsides near Kingman, Arizona.

The melon shaped body of the plant, almost invisible under its mass of spines, is a dark fresh green. It is 8 to 10 inches in diameter and averages a foot in length. There are 12 to 20 ribs which sometimes spiral around the body, but in the type are straight in the upper part of the plant and undulate somewhat near the base where the weight of the plant crushes them together. The areoles appear along the ribs at intervals of about 2 inches, and near the tip of the plant they are completely hidden from view by a mass of greyish white wool.

The spines are usually a greyish pink or reddish, though often at a distance appearing dark, thus giving rise to the most common name of niggerhead. Apparently the number of spines varies greatly, as botanists give several sets of figures. Most agree on 4 centrals, which are $1\frac{1}{2}$ to 4 inches long, and begin to recurve in age—in some cases developing a slight hook at the tip. The radials are said to vary from 4 to 8, 8 to 10 and from 7 to 15—estimates probably dependent upon the locality in which specimens were observed. The radials are subulate, or awl shaped, and are from 1 to 3 inches long. All of the spines are marked with transverse striations and tend to be flattened.

"Cottontop" is another appropriate common name, for the yellow flowers protrude from a heavy mass of felted wool at the crown of the plant. The bases of the flowers and fruits too are encased in the white wool. The sepals terminate in a flat pointed tip which is often mistaken for a young spine.

The fruits are dry and contain many shiny black seeds slightly larger than a common pin head. They remain on the plant a year before they finally open near the base, allowing the seeds to escape. Few, however, are destined to germinate in their rocky barren habitat.

For ordinary purposes of identification, this species may be said to be the only common barrel in the far west which has wool on the fruit pods. This is one of the special characteristics of the Echinocactus group and is shared by only two other species in the United States. These two — *Echinocactus xeranthemoides* of western Arizona and *Echinocactus horizontalis* of southern Arizona, Mexico and Texas—will not easily be mistaken for the niggerhead.

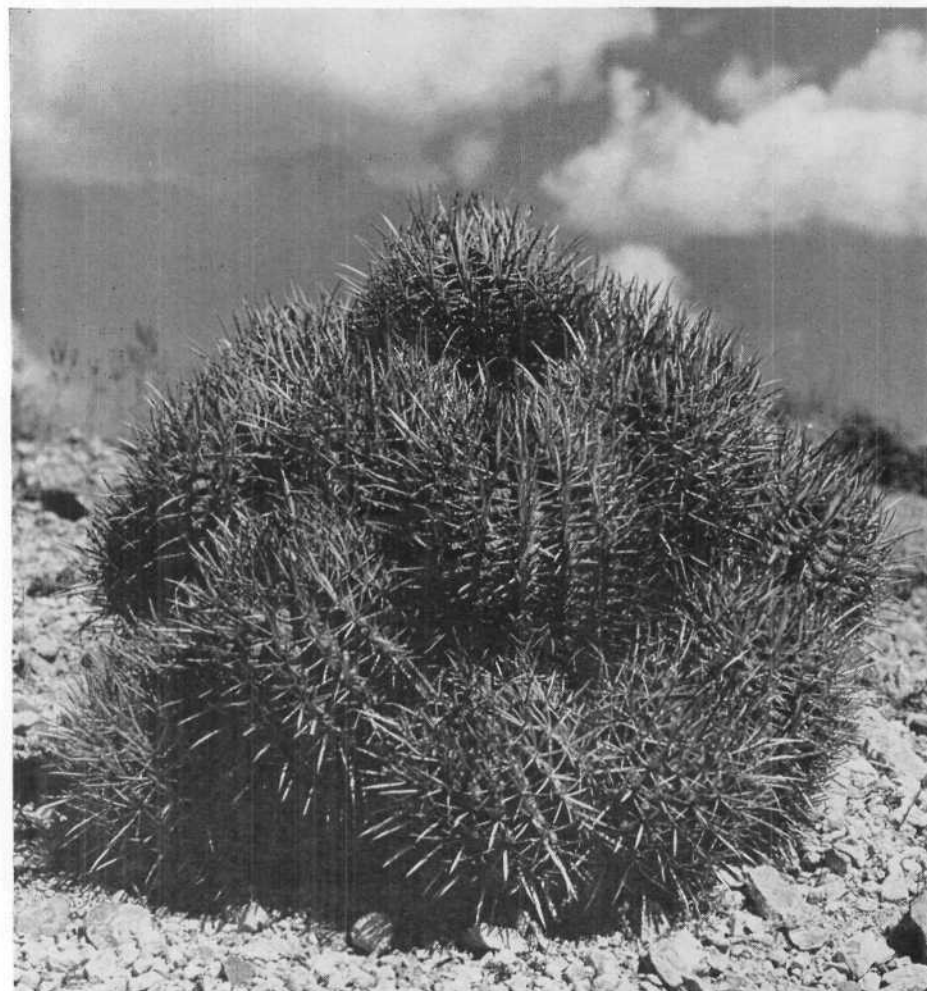


Photo of this Many-headed Barrel cactus taken by Roy Miller near Glendale, Nevada.

TRUE OR FALSE ANSWERS

Questions on page 20

- 1—True. 2—True. 3—True.
- 4—False. Rainbow Bridge is in Utah.
- 5—False. The water comes from the ground at 104 degrees. 6—True.
- 7—False. The Paiute Indians were in Death Valley when the Lewis and Clark party crossed the valley in 1849. 8—True.
- 9—False. Desert willow grows in washes that are dry most of the time.
- 10—False. Chuckawalla lizard has no venom.
- 11—False. Stalactites are formed of limestone. 12—True.
- 13—False. De Anza followed the route south of San Jacinto peak up Coyote canyon.
- 14—False. The jackrabbit is faster than its enemy the coyote. 15—True.
- 16—True.
- 17—False. Creosote grows below sea level in both Death Valley and Imperial valley.
- 18—False. The Indians at Needles are Mojaves.
- 19—True. 20—True.

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Hard Rock Shorty of Death Valley . . .



By LON GARRISON

"Look!" said Hard Rock Shorty. "It says here in the paper that a guy up in Canada just got in the movies by goin' out in the woods an' livin' for a week with nothin' but his huntin' knife. Accordin' to that I'm practically in Hollywood! I remember once I got stuck out like this other dude for three weeks an' I come out of it with the rent paid an' a month's groceries ahead."

Hard Rock ruminated meditatively. The hot sun was making short noon day shadows near the store as he went on with his yarn.

"It was over here in the Panamints on the upper end o' Wild Rose crick. I'd been out on a little trip when I got ketched in a cloud burst. Lost my camp outfit, my burros, all my groceries, hurt my leg, an' like to drowned myself to boot. Even lost my false teeth. Had nothing left but my huntin' knife an' my clothes. Four days in to groceries an' me too lame to walk! I knowed Gene Banks's be by that way in a couple o' three weeks if I could hold out—but somethin' to eat was the problem.

"I decided I'd better stick close to the water hole there, but I done

a little scoutin' around down the crick just for luck an' found one can o' grub. No label on it but when I pried 'er open it was peaches — canned peaches! They was slick eatin', me not havin' my chewers, an' just for fun I saved the juice. Then I got to figgerin' around a bit an' hobbled out a piece an' rigged up a dead fall trap. Baited it with the peach juice, not havin' nothin' better.

"Next mornin' I found I'd caught me a bear—a big, ornery, mangy, tough old citizen—an' me with no teeth! But I haggled off a few pieces an' had bear soup out o' the peach can over a little fire I starts with two sticks rubbed together.

"But soup got kind o' tiresome after a day or two so I begun figgerin' some more. That bear had good teeth an' wasn't usin' 'em. So I dug up some clay, chewed out a couple o' forms, an' fired 'em a bit. Then I knocked the bear's teeth out with a rock an' cemented 'em in the clay. They fit good as the old ones almost! By the time Gene come along three weeks later I'd gained fourteen pounds an' that bear'd been mostly et up with his own teeth!"

The Desert Trading Post

Classified advertising in this section costs five cents a word, \$1.00 minimum per issue—
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BOOKS OF YESTERDAY AND TODAY

—a monthly review of the best literature of the desert Southwest, past and present.

TREASURE THAT HAS BEEN FOUND—AND LOST AGAIN

Phillip A. Bailey devoted 30 years to a quest for stories and legends about the lost mines and buried treasures of the Southwest. His research took him into old newspaper files and the musty records of city, and county and state. He followed desert trails, camped with burro prospectors—and listened to their tales of the riches that had been found, and then lost again.

This year Phil Bailey completed the compilation of all this lost mine lore in a single 353-page volume—**GOLDEN MIRAGES**. The book recently came from the press of the Macmillan company, New York.

Bailey's research confirmed what many of the old-timers have always asserted—that there were two Pegleg Smiths, that they lived in different periods, and both of them found and lost fabulous deposits of native gold.

Scores of versions of the lost Pegleg treasure have been told, and many of them printed. *Golden Mirages* includes all the familiar stories, some of the old yarns with new variations, and still other tales that are published now for the first time. Without question this is the most complete record of Pegleg Smith lore ever to be printed.

The author does not take sides. He presents the stories as they have been told to him, quoting documentary confirmation when it is available. For the most part, however, his sources are the veteran prospectors of past and present—men who knew the Indian who had the map, or whose father had seen some of the nuggets.

Not all the book, however, is devoted to Pegleg Smith. There are the stories of the Lost Ship of the Desert, the Lost Frenchman mine, the Jacumba treasure, the French Bull Ring mine—and scores of others, all located in southwestern United States or northwestern Mexico and Lower California.

It is a readable book, about places familiar to those who travel the desert country. There is no claim as to the authenticity of any of the stories repeated in its pages, but the book gives the impression of studious accurate reporting.

Bailey is a resident of San Diego, California, and knows his desert intimately. Lost mines have been his hobby and he has followed each clue conscientiously—not to find the mine, but to sift as carefully as possible all available data bearing on its probable existence.

Golden Mirages is illustrated with many photographic halftone engravings of the desert region, and includes bibliography and index. \$3.00.

INTIMATE STUDIES OF THE YAQUI TRIBESMEN

To learn the effect of an economic system developed in one culture when superimposed on a social and ceremonial system developed in another, Edward B. Spicer and his wife, Rosamond chose as their case problem one of the most unique cultural units to be found anywhere—the 429 residents of Pascua, Yaqui village near Tucson, Arizona.

For one year they lived in Pascua, making minute observations and records of the social and economic behavior of their neighbors. The Yaqui of this village are all immigrants or descendants of immigrants who have come to this country since 1882 from various communities in Sonora, Mexico. During the politi-

cal persecutions in their motherland families became separated, community units were broken, and many of the old folkways were lost. So the group now composing Pascua is one of heterogeneous origin.

The many-faceted record of this year in Pascua, together with tentative conclusions, form the basis of *PASCUA: A Yaqui Village in Arizona*. This is a volume in the Ethnological series, sponsored and published by the University of Chicago in June, 1940.

Aside from the ethnological inferences in this study, the layman will be interested in the daily life of a culturally isolated people. Chapters on Kinship and Ceremonial Sponsorship, Ceremonial Societies and the *Pascola* Dancers give an intimate picture of the functioning of Yaqui culture. Bibliography, index, maps, illus. Cloth. \$3.50.

WHEN MILLIONS CAME FROM COMSTOCK LODGE

Wells Drury arrived as a gangling young reporter on the Comstock lode during the '70s when Nevada's richest gold field was in its boom period. He remained through the bonanza period to play an active part in both the journalism and politics of the Nevada frontier.

His reminiscences, told in *AN EDITOR ON COMSTOCK LODGE*, written in the latter years of his life and published by Farrar & Rinehart, New York, in 1936, probably comprise the most vivid cross-section of the life of that time and place that has appeared in print.

With clear sparkling style he portrays the bonanza kings and the bad-men, the law, the church and the theater of a hell-roarin' mining camp as he found them. John Mackay, "the boss," Sandy Bowers the hard rock miner who became rich almost overnight, John Piper who owned the famous opera house, Hank Monk the stage driver, Mark Twain the younger reporter—all these and scores of others whose names are well known to students of that period, play intimate roles in Wells' book.

The volume is illustrated with photographs of historical interest. The appendix includes many interesting reprints from the mining camp newspapers, taken from the scrap book of the author. 330 pages and index. (Second edition) \$1.00.

FASCINATING TRIPS INTO THE LAND OF CACTI

Many a visitor and long-time resident in the desert country would like to "call by name" the odd and varied forms of cactus growing on the hillsides and mesas of this Southwest. But the technical descriptive terms in a botanical manual are enough to discourage all but the most determined. A book written for the special use of this class—in which most of us find ourselves—is *THE FANTASTIC CLAN*, by John James Thorner and Frances Bonker, published by the Macmillan company, New York, in 1932.

Each group of cactus native to this area is described while the reader takes an imaginary trip. The first is called *A Desert Fashion Show*, and before this trip ends the "traveler" has a clear picture of the distinguishing characteristics of the genus *Cereus*; he has more than a speaking acquaintance with eight of its species—from the Arizona night-blooming cactus to the giant Saguaro; he knows how

they appear in their native environment and he knows how to grow them in his own garden. If there is something of special interest about their discovery and naming, he has learned that; if the fruits are edible or the plant is otherwise useful to Indian or white, he knows that. And last, but not least, he can tell you what those Latin names mean!

THE FANTASTIC CLAN is a practical book and as enjoyable as a good travelog. The many pen-and-ink drawings by Evelyn Thornber, the end-maps locating species in California, Arizona, New Mexico, Texas and Mexico, and the photographs are useful additions. Glossary, pronouncing vocabulary, index. 194 pages. \$3.50.

• • •

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933.

Of The Desert Magazine, published monthly at El Centro, California for October 1, 1940.

STATE OF CALIFORNIA)
COUNTY OF IMPERIAL) ss.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Randall Henderson, who, having been duly sworn according to law, deposes and says that he is the manager of the Desert Magazine and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, Desert Publishing Co., El Centro, California.

Editor, Randall Henderson, El Centro, California.

Managing Editor, (none).

Business Manager, Randall Henderson, El Centro, California.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)

Tazewell H. Lamb, El Centro, California.

Bess Stacy, Calexico, California.

Edna Clements, Calexico, California.

Randall Henderson, El Centro, California.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)

There are no stockholders, bondholders, mortgagees, or other security holders.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above is (blank) (This information is required from daily publications only.)

RANDALL HENDERSON,
Business Manager.

Sworn to and subscribed before me this 24 day of October, 1940.

(SEAL) M. W. WASHBURN,
(My commission expires May 14, 1944.)

Announcing!

The story
and letters of
Everett Ruess
in book form

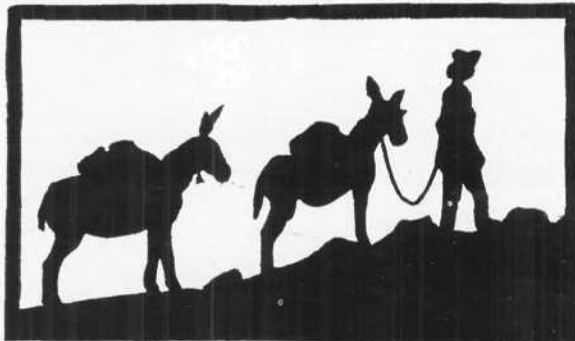


On Desert Trails with Everett Ruess

This is the story of a young artist-vagabond who left a comfortable home in Los Angeles to follow the remote desert trails of northern Arizona and southern Utah where he spent the greater part of four years.

He camped with the Navajo and danced with the Hopi. He climbed precipitous cliffs to explore ancient Indian dwellings. He carried his bedroll and artist's tools on burros—and wherever night found him, that was his home.

Then in November, 1934, he left the little trading settlement of Escalante, Utah—and never was seen again. Later, searching parties found his burros in a remote canyon—but Everett and his camp outfit were gone. No trace of them has ever been found.



Everett's adventures were told in letters to his family and friends, and in his diary, part of which was in the hands of his parents when he disappeared. Several of these letters were published serially in the Desert Magazine during 1939, and created widespread interest. Now, for the first time, the

COMPLETE STORY IS TOLD

in a volume published by the Desert Magazine. The book includes all of Everett's desert letters, reprints from his diary, and much additional material bearing on the mystery of his disappearance.

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THE *Desert* MAGAZINE

El Centro, California



Aerial photograph taken by the Reclamation Bureau showing the canal through the dunes before water was turned in.

Water Now Flows Through the Dunes

By LARRY D. WOLMAN

JUAN BAUTISTA DE ANZA and the explorers and gold-seekers who came after him crossed the Colorado river at Yuma and then detoured many miles to the south to avoid the terrifying Algodones sand dunes of the Southern California desert.

So hazardous was the trek across this waterless region that it became known as *El Jornada del Muerto*—the Journey of Death.

Today there is a man-made river 80 miles long flowing through these same dunes—water enough to supply a million acres of farmland and the domestic needs of 200,000 desert dwellers.

The United States Bureau of Reclamation dug the waterway—the All-American canal. Reclamation Commissioner John C. Page came from Washington October 12 personally to give the order which opened huge gates and started the operation of the new canal system.

Until the completion of this \$33,000,000 canal through the dunes, Imperial valley of California had been receiving its irrigation and domestic water through a 50-mile channel in

Mexico—approximately the same route followed by De Anza and his first California colonists 165 years ago.

Water in the new canal is diverted from the Colorado river at Imperial dam, 20 miles upstream from Yuma. The capacity of the canal at the intake is 15,000 second feet—more water than normally flowed in the Colorado river during eight months of the year before Boulder dam was built.

First operation of the canal October 12 marked the fulfillment of a dream envisioned by the homesteaders on this desert reclamation project nearly 40 years ago. They wanted a canal system entirely under the protection of the flag of the United States. Also, they wanted security against the periodic floods and droughts in the Colorado river.

To secure this double objective it was necessary not only to build a new main canal through 10 miles of shifting sand dunes, but it was also necessary that a great storage dam be constructed in the Colorado somewhere upstream—a dam that would hold back the annual flood which followed melting snows on the western slopes of the Rocky mountains,

and release its surplus waters during the dry months in August and September.

First important victory was won December 21, 1928, when President Coolidge signed the Swing-Johnson bill, authorizing the project. Money did not become available, however, until October 24, 1933 when the Public Works administration allotted \$6,000,000 to start the project.

The canal has capacity not only for the 500,000 acres now under cultivation in Imperial valley, but for an additional half million acres on the mesa areas surrounding the basin, and in Coachella valley. The extension of the canal to serve Coachella lands is under construction.

Complete development of All-American canal power will total 400,000,000 kilowatt hours annually. The Imperial Irrigation district has installed its own power distributing system and has been supplying both town and rural users with electricity generated by diesel motors pending the completion of the canal system. First of the hydro-generating plants is expected to be in operation before January 1, 1941. The diesel plants will be maintained for standby after power is available from drops on the canal.

The canal and headworks were constructed entirely by the Bureau of Reclamation and will be turned over to the Imperial Irrigation district after a proving period of successful operation.

An elaborate program marking completion of the canal was arranged by ranchers and civic leaders in Holtville, Imperial valley community which will be first to enjoy the benefits of the new All-American project. A ceremonial featuring Father Neptune and his mermaids entertained the 8,000 visitors who gathered on the canal banks to witness the arrival of first water through the canal.

Among the speakers were Engineer L. J. Foster who directed the construction work for the Bureau of Reclamation, and Evan T. Hewes, president of the Imperial Irrigation district, whose diplomacy has kept the project free from political pitfalls during the construction years.



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15 lbs. Family wooden flat, good grade fresh Deglet Noor, Del. in U.S.A.	\$3.75

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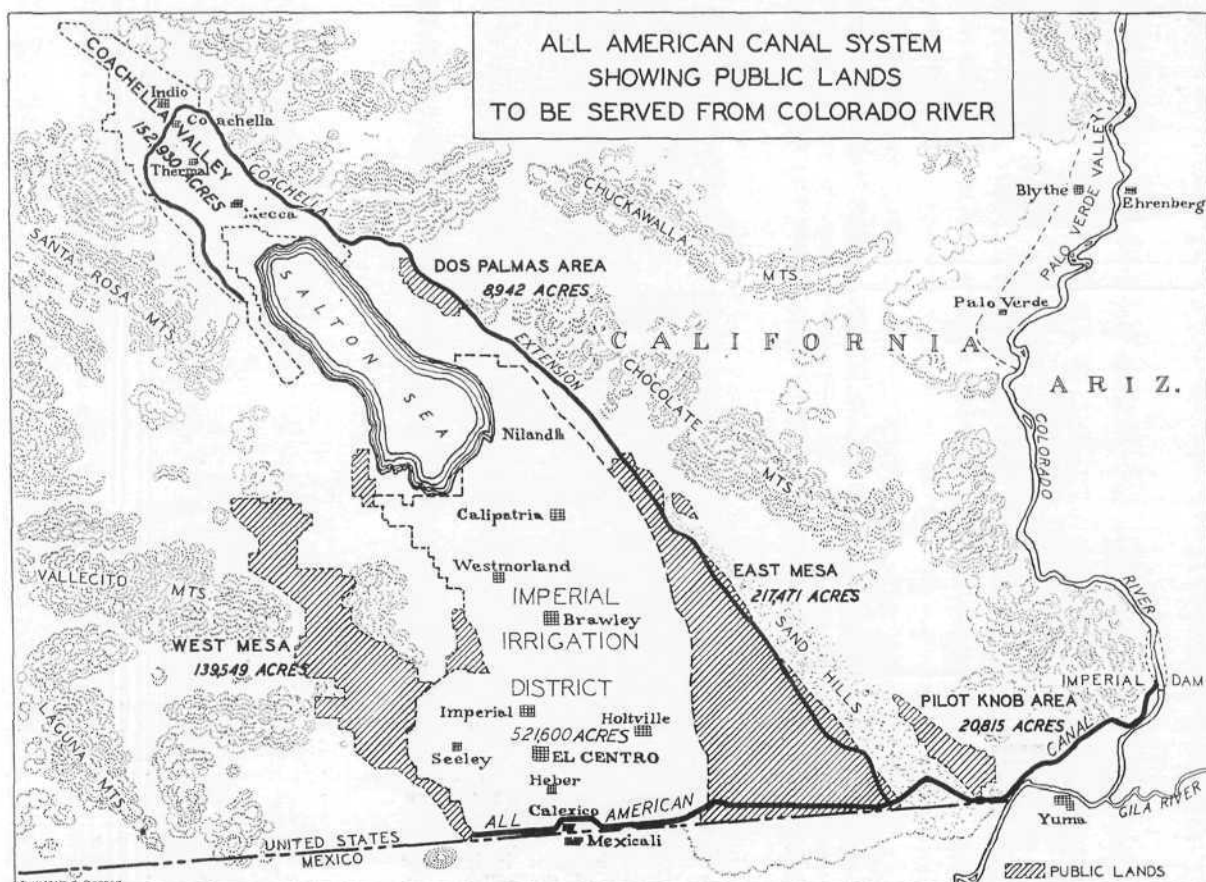
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DECEMBER 8, 1940—11 a. m.

HERE AND THERE

... on the Desert

ARIZONA

Tucson ...

Winter vacation travel to the southwest will be exceptionally heavy this season, according to reports from airlines' agents. Surveys indicate advance bookings at guest ranches and resort hotels in the desert area are heavier than ever, and American airlines has added an extra section to its Mercury flight between New York and Los Angeles.

...

Phoenix ...

Here are gleanings from the Indian country on Uncle Sam's selective service registration:

Flagstaff reports Clyde Peshlakai, Navajo chief in the Wupatki district, depends on a 72-year-old treaty to keep his tribe out of any war in which the United States might engage. "The Navajo do not have to go to war," says Clyde, "because it is written down in Washington that in 1868 the Navajo agreed with the big one in Washington that the Navajo would never again fight anybody." On June 1, 1868, a peace treaty was signed between the federal government and the Navajo Indians.

Eighty-year-old Pia Machita, Papago Indian chief at Toapit, Airzona, called upon his young braves in this southern Arizona desert village of 100 souls, to beat a United States marshal who attempted to arrest him. The chief was accused of inciting resistance to draft registration.

Chairman of the Navajo county draft board says he has "definite information of subversive activity among the Hopi tribesmen." One Hopi is a member of the German American bund, the board chairman reported, and this bund member spread the word on the reservation that the Indians should not recognize the federal government, because Hitler soon will come and "free" them from the United States.

Meantime, fighting Yaquis of the Tucson neighborhood say they want to fight for Uncle Sam, because he gave them sanctuary when they fled from Sonora, Mexico. Tomas Alvarez, chief of these Yaquis, says he plans to form a company to resist invasion if "the Japanese or Germans get near."

...

Tucson ...

Southwestern forest and range experiment station headquarters will be housed in a six-room office building, under construction at the former Carnegie institution desert laboratory here. The laboratory was abandoned a year ago. Range research staff will occupy a stone building expected to be completed about first of the new year. Arthur Upson is director of the station.

...

Tucson ...

Arizona university's anthropology department scheduled for mid-November excavation of the site of ancient Batki, Indian village, in its lifetime visited many times by Padre Kino and finally destroyed by the Apaches. Papago Indian labor will do the digging. Data on the history of Batki people have already been collected by the university, delving into life of the tribesmen who occupied the reservation from 800 to 1400 A. D. Starting from the writings of Kino and working back, it is hoped to complete the history of the village.

CALIFORNIA

Date Palm Beach ...

Seven new world's records were established during the motorboat races held on Salton sea October 27-29. Rough water prevented the racers from holding their preliminary tryouts on Saturday, the first day of the meet, but perfect weather Sunday and Monday contributed to one of the most successful racing events ever held on this inland sea. Gus Eiler, beach owner, recently completed a new steel-piling pier and provided excellent facilities for racers and crowd.

...

Calipatria ...

Four acres of crude salt were harvested in the fall crop of the Imperial salt company on Salton sea, near Niland. Water from the sea is pumped into ponds, then evaporates until only the crystal salt remains. On a narrow gauge railroad the salt is hauled to the plant, where it is broken up and washed in a revolving drum, from which it falls in a snowy heap. Cantaloupe growers and dairies are among customers of the company. In summertime it takes about three months for a salt crop to "mature."

...

Indio ...

Up to 2,750,000 pounds of substandard dates in California will be diverted into crushed dates, date flakes, date sugar, date crystals, under the 1940-41 program of the surplus marketing administration of the department of agriculture. Payments will be made at the rate of 2 3/4 cents per pound, totaling not more than \$75,000. In 1939-40, payments were made for 1,654,000 pounds of dates under this program. Date subsidy is handled in Coachella valley through the Coachella Valley Date Growers, inc.

...

Death Valley ...

Death Valley records for visitors were broken during the past travel year, says a report in October from T. R. Goodwin, superintendent of the famous national monument. In 29,844 motor vehicles, 80,842 persons visited the valley's desert playground, according to Goodwin. Airplane travel also increased. Better approach roads in California and Nevada, word of mouth advertising by pleased tourists, and new moving pictures and travelogs, all combined to stimulate interest in the monument.

...

Brawley ...

Old Spanish days of the Southwest will be recalled November 29-30 when the Brawley Fiesta association will observe the 40th anniversary of the founding of this town with an elaborate two-day program. Parade, dances and costume carnival are among the outstanding events.

...

Indio ...

Surveys will be made at once for a road between Coachella valley and Twentynine Palms, following a meeting here to promote early construction of the highway. It is hoped to have the road opened before the end of the year. Less than 40 miles will separate the two communities when the road is opened. Joshua tree national monument will also be made accessible to tourists passing along highways 99 and 60.

Palmdale . . .

Rexford Johnson, curator of the Antelope Valley Indian museum is first president of the recently organized International pre-historic relic collectors' association. Purpose is to insure genuineness of Indian relics bought from member collectors and dealers. Special fields for the present will be California, Arizona and New Mexico. Johnson plans a bi-monthly magazine under the title "Primitive Man." It will be devoted especially to people who lived on the great American desert before coming of the white man.

Borrego Valley . . .

Residents of this area have agreed on the name of "Font Point" for the lookout bluff overlooking the colorful Borrego badlands. The name was given in honor of Father Font who accompanied Juan Bautista de Anza when he trekked this way with the first California colonists in December, 1775. Excellent accommodations have now been provided for Borrego valley visitors by Ruth and Noel Crickmer who have opened their Desert Lodge-Rancho Borrego for guest accommodations.

NEW MEXICO

Gallup . . .

Radio telephone communication between isolated outposts of the national park service is being established. Daily communication by this method is working now between Chaco canyon monument and El Morro. Chaco has a telephone line to Gallup, but El Morro Indian service personnel heretofore had no way to communicate with the outside world.

Santa Fe . . .

Many young Navajo men believed they had been drafted for war when 4,000 of them registered under the peacetime conscription act, says Hosteen Begay, tribal leader. "Many said goodbye to their families," declares this chieftain. "Scores were convinced they were going to war and said they were ready."

Braves of the Mescalero Apaches in southern New Mexico rallied 100 per cent to the white man's draft call. Ninety three appeared voluntarily at agency headquarters in Alamogordo to sign up. Among them were descendants of many of the warriors who fought on one side or the other in the Geronimo campaigns of the '80s.

Gallup . . .

In October completion of the new Gallup-Shiprock highway was celebrated, with state officials and representatives of many towns on the Navajo reservation in attendance. A banquet and dance featured the program.

NEVADA

Tonopah . . .

When a wild coyote took refuge in the bath tub of a rancher's home at Nyala, a gunshot ended his career. Mrs. Emery Garrett heard her turkeys gobbling in excitement, went out into the turkeys' pen to investigate. A half-grown coyote was troubling the turkeys. The coyote ran when the ranch dog attacked, circled the yard, then spotted a large window in the house. A long jump, crashing glass and the coyote was inside the house. Mrs. Garrett's nephew followed close on the coyote's heels, into the bath room. Here the coyote dived into another window, but the glass held.

Las Vegas . . .

At the 37th annual meeting of the Nevada state medical association Dr. H. A. Paradis of Sparks was elected president. Other officers: Dr. George R. Magee of Yerington, president-elect; Dr. John R. McDaniel Jr. of Las Vegas, first vice president; Dr. D. J. Hurley of Eureka, second vice president; R. Horace Brown of Reno, secretary-treasurer.

Reno . . .

Grasshoppers and Mormon crickets lost ground in the war waged against them in Nevada during 1940, according to reports of the state department of agriculture. There was a decrease of about half a million acres in the total area infested with Mormon crickets.

UTAH

Moab . . .

Detailed survey of Arches national monument is being made by a party of engineers from the general land office. Monument boundaries will be marked and all grazing within monument limits will be discontinued after posting, it is reported here.

Salt Lake City . . .

To preserve historical data relating to Father Escalante, believed to be first white man to travel through what is now Utah, is the purpose of the Escalante Trail society. Miss Edith Wire is president of the society. H. L. Baldwin, chairman of historical spots and markers. At the organization meeting held here in October, Baldwin told how he found in southern Utah in 1884 a carved stone he believes was left by the Father Escalante party.

POWER in the heart of the desert

Through cooperative effort, 60,000 residents of Southern California's reclaimed Imperial Valley have harnessed the waters of the Colorado river and brought all the comforts and luxuries of modern life into their homes and shops.

This power system has been built by the people who dwell in the great Imperial basin of the lower Colorado river. It belongs to them — but the full measure of its benefits will not be realized until every home and office and factory in this region becomes a user of

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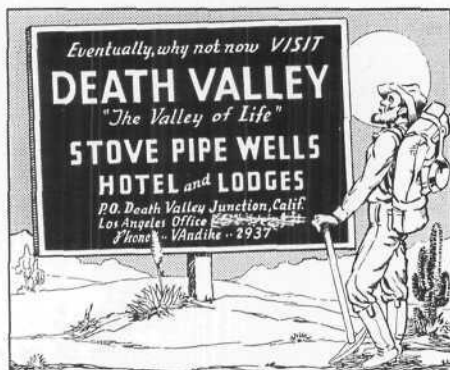
Imperial Irrigation District already has saved hundreds of thousands of dollars to desert dwellers in this area through lower electrical rates. Millions more will be added to the wealth of this region through full utilization of the power resources now available.

There should be a District meter in every place where Imperial Valley people live and work.

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HOTEL

Desert Place Names

Magazine is indebted to the research work done by the late Will C. Barnes, author of "Arizona Place Names;" to Betty Toulouse of New Mexico, Hugh F. O'Neil of Utah, Marie Lomas of Nevada, and Charles Battye of California.

ARIZONA

CLEMENCEAU Yavapai county

Station and post office in Verde valley on Clarksdale branch A. T. & S. F. rr. After the French statesman. Originally called Verde but changed in January 1920 to avoid confusion with Camp Verde. The place was located in 1917. James S. Douglas writes that George Tener, vice president of the railroad agreed to changing the name when it was called to his attention that there were so many Verdes. A letter from the mayor of Clemenceau says, "Clemenceau evidently appreciated the honor for in his will he left a vase to the town which he described as 'designed by Chaplet in a light lilac color which will be found on the shelf above the mirror in my study.' The vase was placed in a case in the town's high school."

...

CALIFORNIA

OLD WOMAN MOUNTAINS

San Bernardino county

This range, southeast of Danby, on U. S. Highway 66, was so named by the Pahute and Chemehuevi Indians, who are identical in race and language, writes Charles Battye. They called it No-mop'-wits, which means literally "old woman." There can be seen, from a certain point of view, a tall, columnar rock, a monolith which bears a resemblance to the form of an old woman. Another range several miles north of the highway is known as Old Dad mountains, and this name is certainly not of Indian origin, Battye declares.

...

NEVADA

SUTRO TUNNEL Storey county

Adolph Sutro, one of the bonanza kings of the Comstock lode, was chief instigator and guiding spirit of one of the greatest engineering feats of early mining days: a four and a half mile drainage tunnel that came to bear his name. Sutro, a German-Jewish immigrant, went to Virginia City from San Francisco at the beginning of the gold rush. Along with his mining interests he opened a mill at Dayton. It was while commuting between mill and mines that the idea of a gigantic tunnel occurred to him, a tunnel to cut the diggings near the 2,000-foot level and solve the problem of drainage, ventilation and to serve also as a way of escape in case of mine disasters. Heat in the mines had become

so terrific that it was necessary to spray water on the men while they worked. Even then they could work but a few minutes at a time and then go to a cooling room. Frequently some of the miners—called "hot water plugs," talked in a rambling manner and collapsed under these conditions. Many failed to revive. Sutro was confident that if the tunnel could be built much money and many lives could be saved. Floods of hot water in every deep shaft and cross cut would be drained. Poison gas and fumes of sulphur, antimony and arsenic would be eliminated. Mines could be opened at lower levels. Struggle to promote the tunnel project made one of the dramatic chapters of the Comstock history. Battling the Bank of California and Ralston's Ring, Sutro went to Washington, and even to Europe to peddle his stock and raise money. On October 19, 1869, ground was broken for the tunnel, to reach from the edge of the valley to the Carson river through the mountains to the Comstock lode. Brass bands blared, shouts of thousands marked the event destined to change many fortunes of the day. Connection with the Savage mine, 1,650 feet below surface of the ground was made about 10 p. m., July 8, 1878. With appropriate ceremonies, Sutro and his daughter passed through, into the Savage workings and the Sutro tunnel was officially opened.

...

NEW MEXICO

CUYAMUNGUE (koo-yah-mung-gay')
Santa Fe county

Spanish form of Indian name, origin and meaning unknown. A former Indian village, now Mexican, settled before the coming of the Spanish in 1540, but abandoned by the Indians in 1691 because of the uprising in that area. In 1699 the site was granted to Alonzo Raul de Aguilar and regranted in 1731 to Bernardino de Sena, who had married the widow of Jean l'Archeveque, murderer of La Salle. In later years the site was repopulated as a village by Mexican farmers.

...

UTAH

GROUSE CREEK Box Elder county

Alt. 5,324. Pop. 307. Settled 1876. Derived its name from the stream near which it is situated. The creek was so named by travelers who found an abundance of grouse in the valley.

Winter is approaching at Yaquitepec, and the foraging of firewood from the sparse vegetation that grows on Ghost mountain is a task for the entire South family. Marshal does not mention it in his diary notes—but it is a rule on Ghost mountain that living shrubs and trees shall not be disturbed. Thus he and his two sons often go long distances to pack in the dead wood necessary to keep the cabin warm when winter winds are blowing.

DESERT DIARY

By MARSHAL SOUTH

November at Yaquitepec

YESTERDAY morning dawned grey and with the drift of heavy rain clouds working in from the southeast. For a long time we have been expecting rain, but had about given it up. It looked so threatening this morning however that I decided to go down and bring up a sack of potatoes, the only item of a recent load of supplies that still remained uncarried. Before I had climbed the mountain with it, however, the first rain sprinkles were upon me and I made the last section of the trail in breathless haste.

There was a lot to be done. I dumped my pack load under shelter at the house and hurried to get things ship-shape. There is always a scurrying in preparation for rain. Things to stow away. The roof guttering to be cleaned and down-spouts to be inspected. By the time I had everything in order the rain was upon us in earnest; a steady light fall that bore all the earmarks of a long, slow storm.

Rain!—how the desert seems to rejoice at these drenchings. We have always work that can be done indoors; some odd jobs that have waited for just such an occasion. This time it was soap making, for which we had collected a big stock of fat scraps and trimmings from the kitchen. But as we busied ourselves we spent much time at the windows. It is hard to keep away from the windows on occasions of rain. With all the lowland desert wrapped in a curtain of grey, the rocks and junipers on our mountain seem to stand out in clear-cut freshness. The ocotillos stretch their wands across the white, damp glint of the rocks. All the yellow flowers of the *ramarillo* bushes have changed to creamy masses of seed tufts that, in the steady fall of the showers, give the low bushes the appearance of being coated with a mantle of yellow-white snow.

Rudyard and Rider perch in one of the broad window seats, their noses pressed close to the glass, watching a pair of white-crowned sparrows hopping beneath the shelter of the damp bushes that crowd upon the house. The chukka partridges came in to be fed with the first drizzle and after their meal sat around mournfully in the damp, heads cocked to one side, bright eyes watchful for hawks.

The chukkas do not like the rain. But our garden does. It was in perilous straits. For two weeks the carrots and beets have been on famine rations of water. And the corn has been sternly denied anything for so long that the tasselled heads had begun to wear a chronically dejected look. Now in the downpour it is standing up bravely and waving bright green banners of triumph. "Co'n getting plenty watah!" Rudyard says, pointing. He claps his hands in sheer joy. Rider, for his part, is speculating on how much water he will catch in his individual reservoir. There has been great engineering on that reservoir. He dug it himself, struggling determinedly with a grown-up size mattock. It is about two feet deep and three feet across. Rider is desert minded when it comes to



Tanya in the window seat of the South cabin at Yaquitepec. The tall stalks that dot the top of Ghost mountain are agave or wild century plant.

water. He spends a good deal of his time, when it rains, running around and setting up empty cans to catch stray drips from roofs and rocks. A good habit, perhaps. It is building a foundation that, in later life, may be useful. For, after all, an understanding of conditions is the first step towards mastering them.

Plenty of water falls upon most parts of the desert, if only it could be intelligently conserved. The desert plants have mastered conditions. There is no reason why human beings cannot do the same. An all-wise Providence sends copious drenchings of water from time to time upon the wastelands; the fact that these rains are often irregularly spaced is only another challenge to ingenuity. Man however lets these thousands of tons of precious fluid rush to waste—and then complains about "desert conditions."

Our soap came out well. With the drumming patter of the steady fall beating upon the iron roof overhead we achieved a fine batch, stirring in the lye solution and beating up the creamy mixture and turning it finally into moulds. It will be enough soap to last for several months.

When night shut down we drew the curtains and lit the lamp and Tanya made whole wheat doughnuts, cooking them in deep fat in the iron kettle. And of course, as we sat around the light and munched doughnuts, books had to come out and stories had to be read until the eager faced audience nodded sleepily and had to be lifted up bodily and piled off to bed. And still the rain fell. Wind came up out of the night and swirled over the house, and the ship's lantern swinging from the iron chain above the long table, flickered and danced, sending shadows scampering up and down the whitewashed walls. Night hush; the peace of falling rain;

the haunting mystery of vast space—where else, save in the desert, does the heart thrill so deeply to such fundamental things?

A good deal of our spare time these days goes to fuel gathering. November is a warning that Winter is hurrying towards us and we must be prepared. It is quite a job. For it is astonishing the mountain of fuel that a few days of "cold-snap" can eat up. So there are expeditions down the trails and up the trails in search of dead trees and any material that will burn. Dead mesquite butts, if they are last season's, make roaring winter fires. But the more ancient butts absorb dampness from the atmosphere and are temperamental when most needed. Dry juniper is our chief reliance for the cold days. Our fuel heap is growing—and I am reminded thereby of the fact that Rider is growing also. He is much a part of the fuel gathering trips and I am astonished sometimes to realize how materially his contributions help to swell the stack. I fear Rudyard gets a bit jealous at times. He hates to be outdone. I catch him sometimes struggling and puffing to uproot a dead mesquite butt about six sizes too big for him. And when the dry stuff crumbles under the desperate clutch of tiny fingers and he sits down suddenly with a breath-taking flop he scrambles hastily to his feet, still holding the wispy handful, and rushes to the fuel pile. "I am a good boy!" he announces loudly, tossing his scrap onto the heap. "I bring in almost as much fuel as Rider!"

But fuel gathering is rough on sandals. Ordinarily, bare feet are the rule at Yaquitepec. Wood gathering however calls often for the navigation of savage sections of rock and thorn where barefoot caution would consume too much time. So we dig out our Yaqui sandals for the job. Probably the

oldest and simplest human device for foot protection, the sandal is still the most comfortable and healthiest thing man has ever fashioned in the way of footwear. You have to get used to wearing a sandal it is true. Generations of abuse in "thoroughly scientific" shoes have spoiled civilized feet to such an extent that they have to be entirely re-educated. But once the sandal technique is learned the foot enters upon a new and better life of freedom.

There are all kinds of sandals. The "scientific" ones are infinitely more destructive on the human foot than even the "scientific" shoes. But the good old primitive ones are the nearest thing to barefoot comfort ever invented. The ones we use at Yaquitepec are the Yaqui style. There is very little to them—just a piece of leather and a thong. The Mayo sandal is more elaborate; a weaving of thongs over the foot in a good deal of fanciness. But it is comfortable too. If you are lucky and can talk enough Spanish and will sternly insist that you want the old fashioned, country style ones, you can sometimes buy a pair of Mayo sandals in Mexican stores across the border. But not often. In sandals, as in everything else, the modernists are getting in their deadly work. You are likely to be offered some arch breaking device all tricked out in "cute" little leather knots—and with a heel.

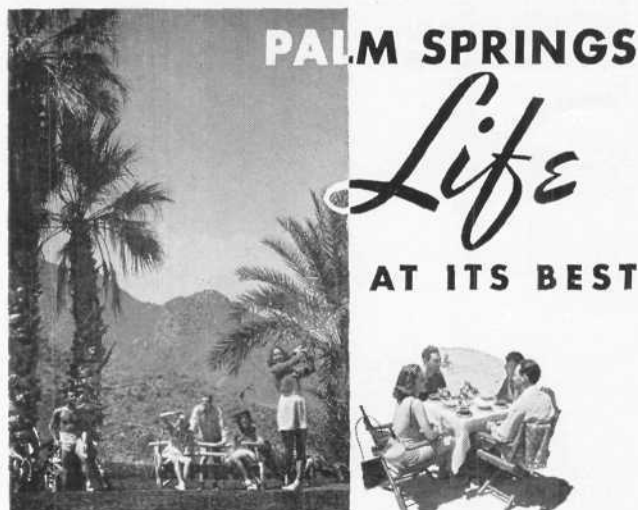
However, sandals wear out—even the barbaric Yaqui ones. The granite rocks on Ghost mountain are about as kind to leather as is an emery wheel. So the fuel gathering season at Yaquitepec is also the season when the cobbler plies his trade—splicing broken thongs and cutting new soles. But there are compensations. The sandal maker, as he squats at his bench, slitting and shaving leather, always has an appreciative audience. They are on the lookout for discarded scraps of leather. Leather scraps are hoarded away in boxes and jars amongst a host of other weird, childish treasures. Yes, winter and the season of roaring fires is on the way.

The sun rises late these November mornings. And beneath our mountain summit the morning shadows lie deep and long across the lowland desert. And there is a peculiar crisp freshness and beauty to the dawns. The sun gets up from his southern haunt, away south on the reaches of the Rio Colorado, with a leisurely deliberation, as though reluctant to begin the day. Through the low mists and shadows that lie purple and smoky along the old sea bed the great golden ball of fire heaves into view, flattened and distorted and coppery gold, a fantastic creation of dazzling gleam. Not like the hot, hard sun of summer, this mighty, rising disc. Vast, bulged and quaintly flattened as it breaks the far line of the horizon, it seems less like a sun than the dome of some Titan temple reared in the desert wastes by the labor of giants. Rider, who has an eye for beauty, is particularly fond of these sunrises. This morning, more than usually enthused, he hauled Rudyard out of a dozy sleep and dragged him outside.

"Now, you look at all that," he commanded. "See the purple and the pink and the gold and how beautiful it is. See it! Look at it! Now, don't you think it's beautiful?"

Then, as his fervor failed to elicit more than a sleepy grunt from his scarcely awake understudy, he added encouragingly, "Don't you understand what it means? It looked like this just about this time last year. It means Christmas is coming."

Little Victoria, our newest clan member, is growing by leaps and bounds. A sturdy, lively little girl. The tint of the desert sun is in her cheeks and limbs and the mystery of the desert is in her eyes. Thoughtfully she lies, watching by day the dance of the sun-patterns on the wall, and the weaving tapestry which the lantern-flame draws from the shadows at night. What does she dream about? We wonder. Rider is sure that she is figuring out the design of bigger and better water cisterns. Rudyard loudly disagrees and asserts she is thinking of going to town to eat ice cream cones. The question remains unsettled in spite of loud arguments. Victoria says nothing. She just wrinkles up her tiny features and smiles.



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Gems and Minerals

This department of the Desert Magazine is reserved as a clearing house for gem and mineral collectors and their societies. Members of the "rock-hound" fraternity are invited to send in news of their field trips, exhibits, rare finds, or other information which will be of interest to collectors.

ARTHUR L. EATON, Editor

Barstow Awards Many Prizes

By CLARK HARRISON
(Hollywood columnist and technical writer)

FIRST Annual Mojave desert mineral show held at Barstow, California, October 19-20, was one of the most fascinating semi-precious gem rock exhibits ever held in this state. Visitors agreed it was second only to the state convention display in Santa Barbara last April.

There were 1600 visitors, many coming from other states. Ralph Erskine, Jr., from Randolph, Maine, brought an unusual specimen of pink tourmaline, having long, slender, triangular crystals. It came from the Black mountains near his home. Fifteen of the state's twenty-four societies were visitors.

Barstow's beautiful, ultra-modern Beacon Tavern housed the exhibits—the lobby, halls and ground rooms being given over to the show, which represented competitive exhibits of gems and minerals of the Mojave desert area, known as "The Jewel Box of the World." Commercial and amateur exhibits were kept separate. Ribbons went to prize-winners, while special award winners received a year's subscription to a leading mineralogical magazine, tickets for double rooms in the Tavern, tickets for dinner in the Beacon Coffee shop, horn silver specimen from Calico mine, "Mud mother," Nevada opal specimen, or a plume agate.

PRIZE WINNERS

- (1) Best Collection of Polished Slabs or Flats.
 - (a) Residents only. 1st prize: George Wagner of Barstow.
 - (b) Non-residents. 1st prize: C. E. Cramer of Los Angeles; 2nd, Glenn Harms of Los Angeles.
 - (c) For dealers. 1st prize: Jim Lucas of Daggett.
- (2) Collection Cabachons or Faceted Material.
 - (a) Residents. 1st George Anthony of Daggett; 2nd, Walter Lauterbach of Barstow; 3rd Robert Greer of Yermo.
 - (b) Non-residents. 1st H. R. Ringwald of Hollywood; 2nd C. E. Cramer of Los Angeles; 3rd H. Marsden Heard and N. H. M. Freeman of Los Angeles.
- (3) Collection of Minerals.
 - (a) Residents. 1st Robert Iverson of Barstow.
 - (b) Non-residents. 1st Searles Lake Gem and Mineral society of Trona.
 - (c) Dealers. 1st Death Valley Curley of Beatty, Nevada; 2nd E. W. Shaw of Yermo.
- (4) Best collection of Vertebrate fossils (Mojave Desert area).
 - (a) 1st Mrs. Harry Kelly of Barstow.
- (5) Invertebrate fossils. (No entries).
- (6) Any interesting item not otherwise mentioned.
 - (a) 1st Mrs. Sarah L. Emerson of Hodge.
- (7) Any interesting item outside the Mojave desert area.
 - (a) 1st C. E. Cramer of Los Angeles.

SPECIAL AWARDS

- A—B. R. Dunham, Victorville: Stone carvings.
 B—Mr. and Mrs. Gae Chenard, Bakersfield: Polished material.
 C—Charles Williams, Barstow: Largest specimens and most outstanding display.
 D—Kent Knowlton, Randsburg: The Original Rock Dinner—exhibited by Clark W. Mills of Trona.
 E—Mrs. Jessie Hersch, Hollywood: Polished petrified wood.
 F—J. M. Lane, Pasadena: Cabochons.
 G—William J. Kane, San Francisco: Polished flats from all over the world.
 H—H. Marsden Heard and N. H. M. Freeman, Los Angeles: Novelties.
 Judges were C. D. Woodhouse, Santa Barbara; Ernest W. Chapman, Pasadena; Dr. M. J. Groesbeck, Porterville; Paul Vander Eike, Bakersfield; Phil Orr, Santa Barbara.

There were demonstration rooms for fluorescent and phosphorescent minerals, lapidary work, commercial minerals, and periodicals. Field trips were made to interesting places as ghost mining towns of Daggett, Calico and Borate; to the Goldstone district where turquoise specimens were found; to Coolgardie, where banded felsite, iron nodules, aragonite and chalcedony were secured; and to Fern Rock mountain where unusually good manganese dendrites were to be had. A grab box and swapping were permitted the second day. There were dancing and entertainment at night at the Outpost, dining quarters of the Tavern.

One very interesting exhibit was that of Kent S. Knowlton of Randsburg, famous for its gold, silver and tungsten mines. He calls it "The Original Rock Dinner," and it all came from around Randsburg. It is a large dinner table set with a large appetizing meal, but upon close inspection, it will be found that the food is really minerals and rocks. The dinner is listed on a printed menu, which contains rib steak, potatoes, cauliflower, baked squash, turnips, desert clams, head cheese, pigs' knuckles, peanut candy, ginger cakes, salad, piccagli sauce, potato chips, liverwurst, salami, olives, celery, dinner mints, salt, pepper, marble cake, mint jello, cream puffs, and chocolate meringue pie. The steak is petrified wood, the clams are fossils, the salt is real, pepper is black sand, etc. Visitors are instructed that if their teeth are poor, they may rent a set, which pertains to the huge jawbone and teeth of a fossilized elephant.

It would require too much space to describe the great number of exhibits and the variety and beauty of their specimens. However, we would like to mention a few: Wendell Stewart, Pasadena: Mexico gems, fire and cherry opals, selenite and calcite crystals; Mrs. Jessie Hersch, Hollywood: Petrified wood—one of the best collections in the country.

Dr. Marsden Heard and N. H. M. Freeman, Los Angeles: Beautiful polished novelties of Howlite, petrified wood, etc.; H. R. Ringwald, Hollywood: display of cabochons, most of the gems having been found by Ringwald himself. Nelson Whittemore, Santa Barbara: Opals.

Barstow has gold, silver, lead, barium, borax, turquoise and salt mines. The Mojave

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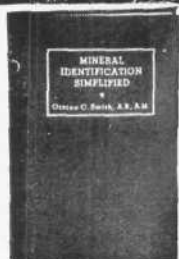
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Gem and Mineral society, organized only a short time ago, has 66 active members. The officers: president Walter Lauterbeck, vice presidents Robert Green and Fred Meyer, secretary Tom Wilson and exhibit committee chairman Robert Greer, well known rock hounds in this area, are to be complimented for one of the finest and most successful mineral shows, and the excellent way the convention was arranged and conducted. I am certain that everyone looks forward to the time when it will be possible to return to this charming little desert city—Barstow—Gem of the Golden Mojave Empire.

Commercial exhibitors included C. D. Puddy of the Distinctive Gift and Gem shop, Los Angeles, with a varied exhibit of unusual specimens, and cutting and polishing equipment; Warner & Grieger of Pasadena, Wm. J. Grieger in charge, featuring rhodocrosite from Argentina and a fine display of rough and cut material, and lapidary equipment; Covington Machine Shops of Redlands with its popular horizontal lap equipment; Ultra-Violet Products, Inc., of Los Angeles with a colorful darkroom exhibit; Mrs. Fred J. Rugg of Los Angeles with a striking exhibit of aragonite; E. W. Shaw of the Mojave Desert Gem and mineral shop at Yermo; Clarence Dillon of Barstow with a huge specimen of lodestone; Jim Lucas of Daggett, Pacific Coast Exploration company of Riverside, Los Angeles Mineral Products, Texas Quarries of Victorville, "Rockhound" Wilkins of Redlands and Southwestern Portland Cement company of Victorville.

NORTHWEST FEDERATION MEETS AT SPOKANE

Northwest Federation of Mineralogical societies held its convention at Spokane, Washington, October 12-13. Columbian Geological society acted as host. About 2500 persons, including 200 members and 200 special guests, viewed the displays.

All of the federated clubs exhibited specimens and handicrafts. Seattle Gem club had nine well filled showcases to its credit. Much interest was evinced in equipment and materials shown by commercial companies. Mr. and Mrs. Walter Larson of Seattle exhibited a collection of hand made jewelry. Fred Jones of Grand Coulee dam displayed an unique collection made up entirely of polished and unpolished limb sections from Eden Valley district of Wyoming.

Milton E. Reed, retiring president of federation, presided at the banquet, October 12. Over 180 persons enjoyed the festivities. One hundred prizes were awarded during the evening.

Portland, Oregon, will be host to the next convention of the Northwest Federation. The date is tentatively set for Saturday and Sunday preceding Labor day, 1941.

Officers of the federation elected at the business meeting are: J. Lewis Renton, Portland, Oregon, president; Don Major, Tenino, Washington, vice president; A. W. Hancock, Portland, Oregon, secretary; Dale L. Lambert, Spokane, Washington, treasurer.

Prizes awarded in the amateur displays were:

Cabochons and Faceted Section:—

First prize—Stanley O. Miller of Lewiston, Idaho.

Second prize—Robert Ross of Seattle, Washington.

Third prize—H. E. Murdock of Bozeman, Montana.

Crystals and Mineral Section:—

First prize — Clem Adsitt of Lewiston, Idaho.

Second prize—C. E. MacDonald of Seattle, Washington.

Fossil Section:—

First prize—A. W. Hancock of Portland, Oregon.

Second prize—Mrs. Louie Potuin of Lewiston, Idaho.

Third prize—E. E. Alexander of Spokane, Washington.

Polished Slabs and Flats Section:—

First prize—Mr. and Mrs. Walter Nelson of Portland, Oregon.

Second prize—Mr. and Mrs. C. A. Foss of Seattle, Washington.

Third prize—Guy A. Bloomquist of Portland, Oregon.

Special mention was given J. Lewis Renton of Portland, Oregon; Walter Sutter of Tacoma, Washington; Mrs. Vera Landon of Seattle, Washington; Luhrs Jensen of Hood River, Oregon. The above four were not in competition for prize awards.

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• • •

HOWLITE SOUVENIRS

Among the many interesting exhibits at Barstow were a number of small dishes and other articles cut from howlite. Howlite is a silico borate of calcium which occurs in pieces of various sizes in Hants county, Nova Scotia; near Lang, in Los Angeles county; northeast of Daggett, in San Bernardino county, and at a few other places. Its hardness of 3.5 and its high tenacity renders it quite suitable for carving. The snow white color, often streaked with dark green or other dark colors, is very attractive.

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AMONG THE ROCK HUNTERS

Santa Monica Gemological society, at its October meeting, filled the auditorium of Ocean Park library to capacity to hear an address by Nicholas A. D'Arcy Jr., on "History and Methods of Mining Gem Stones." D'Arcy is president of Los Angeles Gemological society. He contends that civilization began when man ceased using stones for ammunition only, and began using them for personal adornment. Mrs. E. L. Greer was elected corresponding secretary in order to lighten the duties of the recording secretary. C. D. Heaton, first vice president, was elected federation alternate, C. H. Chittenden, treasurer. Barstow mineral show was the goal of the October field trip. On the 20th the members met at Newberry springs and went to the Yermo district, where they obtained interesting specimens.

• • •

The Pacific Mineral society, inc., held its October field trip at Barstow on the 19th and 20th in order that the members might be able to attend the display of the Mojave Desert Gem and Mineral society. About 45 members participated in the trips Saturday afternoon and Sunday. Saturday trips were made to a deposit of dendritic porphyry on the Mojave road, and to the old borax works at Boron, where some fine satin spar was obtained. Sunday, an all day trip was made to Goldstone, where the turquoise dump was worked over with varying degrees of success, then to Coolgardie for iron (hematite) nodules which were plentiful. Also a vein of fluorescent aragonite was visited and as many specimens were secured as one wanted to pack back over the two hot miles which this trip necessitated.

• • •

Ed. P. Matteson, dealer at Phoenix, contributed an unusual specimen to the Desert Magazine's mineral display in October when he brought in a sample of Antlerite. You won't find it in many of the books—and it takes a glass to bring out the beauty of the tiny crystals.

• • •

Frank Beckwith Sr., reports from Delta, Utah, that the Topaz mountain field has practically been exhausted of exposed material. In order to secure good specimens it would be necessary to camp for two or three days and make an intensive search. It is still possible to pick up good crystals along the road on the way to Topaz mountain. In fact, Juab county claims that its roads are paved with topaz. Frank Beckwith was accompanied on a recent trip to the field by Mr. and Mrs. Charles Kelly, Salt Lake City, Mrs. Robert Clark and daughter Jessie Lynn. It fell to the little girl's lot to find the best specimen secured on the trip—a fine red topaz crystal.

• • •

Los Angeles Mineralogical society made the Mohave mineral show the objective of its October field trip. Members attended the show October 19, and the following day organized a trip to Newberry springs and Siberia craters, where they obtained samples of banded ribbon jasper, bentonite, calcite nodules, epidote, volcanic bombs, olivine, and jiddingsite. The following officers have been elected: M. E. Peterson president, James Arnold first vice president, Donald Mulvey second vice president, Dorothy Weber secretary, Mary Wheeler treasurer, O. C. Smith federation representative and Dale Myers chairman of field trip committee.

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LEGENDS OF GEMS, H. L. Thomson. Elementary principles of gems and gem-cutting. 136 pages \$1.15

HANDBOOK FOR THE AMATEUR LAPIDARY, J. H. Howard. One of the best guides for the beginner gemcutter. 140 pages. Good illustration \$2.00

QUARTZ FAMILY MINERALS, Dake, etc. New and authoritative handbook for the mineral collector. Illustrated. 304 pages \$2.50

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Sequoia Mineral society was well represented at Barstow, October 19-20. The society held its first fall gathering at Parlier, October 1. Members reported summer trips and exhibited new specimens.

Frank Hornkohl was guest speaker at the October meeting of Kern county Mineral society. Hornkohl's subject was "New Methods in Laboratory Testing." After the meeting, members were taken to Hornkohl's chemical laboratory where they were given a demonstration on techniques of laboratory testing and in uses of the spectroscope and the fluorescent lamp.

It is not too early to begin laying plans to attend the sixth annual convention of California Federation of Mineralogical societies, to be held in Oakland, California, May 10-11, 1941.

RARE CHRYSOCOLLA SPECIMEN

E. P. Matteson of Phoenix, recently exhibited a 40 pound specimen of gem quality chrysocolla, encrusted with bluish white, botryoidal chalcedony, like bunches of large grapes. Each grape contains water and an air bubble, so that they resemble an aggregation of enhydros agates on the brilliant blue stone, or a group of round spirit levels—a truly unique specimen.

Matteson also has a 23-inch mass of chrysocolla which weighs 100 pounds, "largest piece of crystalline chrysocolla in captivity," he claims. A layer of chalcedony spreads over the top and side of this huge gem, like a frozen waterfall.

Chrysocolla is copper silicate. Good gem quality, though rare, is rapidly becoming popular for ring sets and other jewelry. It is especially attractive when it comes mixed with malachite and chalcedony.

Cogitations . . .

Of a Rockhound

By LOUISE EATON

● What makes a rockhound more madder at himself than most anything is to go out after specimens and get stuck. Not just ordinary stuck, but really STUCK! That means headin for China the hard way. Ordinarily, a bit of creosote bush or smoke tree under the wheels an' cautious steady drivin'll get an auto through eny sandy spot. But wunce in a while a safe lookin road'll collapse out from under, an' then it takes patience an' ingenuity to get goin again—frontwards instead uv down.

● Deflated tires helps on a softish road bed. An' if a rockhound travels mutch where he has to use soft tires, it's mighty handy to have a spark plug pump along to pump em up afterwards. Some rockhounds recommends totin' old Model T fenders for emergencies, or a strip of old canvas beltin that can be fastened onto the car an' come flappin on behind an' not have to be stopped for after the car gets goin' again.

● Sometimes rockhounds gets stuck so bad they practically has to construct highways; an' even wunce in a age they has to hike miles for a tractor to get pulled out with. Rockhounds, however, mostly all knows enuf to carry along plenty uv water an' gas—just in case. But havin to dig out automobiles insted of specimens shure is Xasperatin.

Misnamed Minerals

ARAGONITE

Aragonite is a mispronounced rather than a misnamed mineral. It was named originally for the province of Aragon, in Spain. In Spanish, this name, Aragon, is pronounced with a strong accent on the last syllable. The word has, however, been anglicized, so that in English it is now pronounced with the accent on the first syllable. This renders the common pronunciation of arag'omite (accent on the rag) entirely erroneous.

George L. English, in the pronouncing vocabulary of his "Getting Acquainted with Minerals," stresses the word on the first syllable, i. e. ar'-a-go-nite. The pronunciation in the list given by English, was taken from the Century Dictionary list of Prof. E. S. Dana. Both International and Webster's dictionaries stress the word on the first syllable also.

Imperial Valley Gem and Mineral society has filled a glass cabinet in the corridor of the county court house in El Centro with specimens of valley gems and minerals. The exhibits will be changed frequently. A second cabinet is contemplated to display cut and polished valley material.

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Mines and Mining . .

Bisbee, Arizona . . .

More than 7000 miners and smelter men in Arizona benefit by a 5 percent wage increase effective October 7. Under terms of a sliding scale wage agreement, Phelps-Dodge corporation moved wages upward, after copper price stood for 30 consecutive days at 11.5 cents or better. Smaller employers move their pay scale up and down with Phelps Dodge.

Golconda, Nevada . . .

After 50 years' slumber as a ghost camp, this old town stirs again with life as mining activities expand. Work goes ahead on a plant for the Nevada Massachusetts company, to treat 50 to 100 tons of tungsten ore daily. Manganese is being shipped from the Clough mine and the Adelaide crown property has a new cyanide mill to handle 150 tons of gold ore daily.

Virginia City, Nevada . . .

Miners working a gold ledge uncovered in a new section of the Talapoosa property in the Virginia range report they have killed 63 rattlesnakes close to the mine workings in a period of several weeks. Eleven snakes were killed in one day, they declare.

Mojave, California . . .

H. J. Brooks reports discovery of gold in hitherto undeveloped district on the south side of Soledad mountain. Brooks says he thinks his find may be a continuation of the Lode Star vein, running parallel to the Golden Queen lode. Surface samples, he reports, run \$8. to the ton from a deposit 20 feet wide.

Las Vegas, Nevada . . .

Gold excitement is reported from the Nipton-Ivanpa area just south of the Nevada state line, in San Bernardino county, California, following reported discovery of fabulously rich ore, said to run \$22,000 per ton. A local newspaper says there "seems to be little uncertainty that a sample of ore running high in gold was found and assayed by a well known metallurgist" and adds that "an area 10 to 15 miles each way" is being scoured in search of locality and lead.

Duncan, Arizona . . .

Demand from steel mills for fluor spar has increased activity in the Duncan area. Recently completed mill two miles north of here is receiving custom ore from small properties, its main supply from the Mohawk, which produces 25 tons daily from open cut workings. Fluorspar is turned into hydrofluoric acid, required for flux.

Boulder City, Nevada . . .

Bids will be invited about December 1 and construction of the federal government's test plant for manganese will be started here soon after first of 1941, says Congressman James Scrugham. Work is under direction of the technologic committee on manganese of the national academy of sciences. Scrugham says the plant will cost \$1,000,000, will employ 72 technicians, in addition to helpers and maintenance crews.

Tucson, Arizona . . .

Arizona's tungsten deposits will be discussed in a booklet being prepared by the state bureau of mines. The report is based on recent investigation by Dr. Eldred Wilson. Most of the tungsten produced in Arizona so far has come from the Mammoth area in Pinal county and the Boriana mine in Mohave. Cochise county's Huachuca mountains hold tungsten and there are undeveloped deposits in Yavapai and Maricopa. The mines bureau plans to print booklets on molybdenum and vanadium.

Lovelock, Nevada . . .

From a gold strike made by J. C. Skaggs, a veteran prospector in virgin country 50 miles west of here, a carload of ore has been shipped. A camp has been built and mining machinery is being installed. Numerous claims have been located in the district.

Goodsprings, Nevada . . .

New concentration mill of Las Vegas Mining and Development company has been placed in operation here, with daily capacity of 100 to 125 tons of vanadium ore. In addition to the Frederickson, Lookout, Root Hill and Williams properties, the company has acquired the Cerner group in the northern section of the vanadium belt. Prospects are said to be favorable for development of extensive ore bodies.

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PIPER'S OPERA HOUSE

Ruth C. Ferron of 404 Fremont street, Las Vegas, Nevada, is the winner of the October Landmark contest announced by the Desert Magazine. The photograph is of the stage in the old Piper Opera house at Virginia City, Nevada. In this theater appeared the most brilliant players and lecturers of that period when the Comstock lode was producing millions. Ruth Ferron's story, which won the Landmark prize, appears on this page.

though the seats next to the bar came as high as \$10 or \$15, and with extra special attractions the front row sold for as high as \$50. Perhaps no theater in the world was as unorthodox in its presentations. One week Artemus Ward, humorist would lecture—to be followed by a variety show—Victoria Loftus and her



By RUTH C. FERRON

THE photograph offered for identification in the October issue of the Desert Magazine is that of the historic old theater known as "Piper's Opera House" in Virginia City, Nevada. It was built in 1863 by Tom Maguire, who came to Virginia City from California—was twice destroyed by fire that swept the famous old mining camp, and twice rebuilt.

Today the old wooden structure still stands on the corner of Union and B street, shadowed by Mt. Davidson and is still in fair condition, despite age, cruel winds, fire and the neglect of years. It is said that the tremendous outpouring of gold and silver, amounting to millions, from the mines of Virginia City, saved the Union when it needed money so badly to carry on the war against the Confederacy.

Tourists today may visit this famous camp by motoring over a splendid and scenically beautiful highway—a 30-min-

ute trip from Reno—and among the many historic buildings to visit will be Piper's Opera House, which is open to visitors with guide service for a fee of 15 cents.

There is probably no theater in America which can boast of more romantic charm and whose stage has presented more illustrious names than that of Piper's Opera House. Here appeared the leading theatrical lights of the 70s — Jenny Lind, Tom Thumb, Tony Pastor, Nat Goodwin, Adah Menken, Henry W. Beecher, Joe Jefferson, Buffalo Bill, Patti, Modjeska, Edwin Booth and countless others, who considered an engagement at Piper's a most profitable venture during those fabulous days of the big bonanza on the Comstock lode.

It is recounted that Modjeska made a small fortune in one evening, for after returning to the stage time after time for final bows, she was showered with golden coins amounting to over \$5,000 by her admiring audience—a modest gesture on the part of those boisterous and appreciative miners.

The usual admission price, judging from old posters, was about \$5.00, al-

though the seats next to the bar came as high as \$10 or \$15, and with extra special attractions the front row sold for as high as \$50. Perhaps no theater in the world was as unorthodox in its presentations. One week Artemus Ward, humorist would lecture—to be followed by a variety show—Victoria Loftus and her

British Blondes. Or, perhaps the great reformer, Henry Ward Beecher, after several nights of stern preaching on the sins of the world, would be replaced by Tony Pastor and his rollicking burlesque show. These are only a few of the processions that marched across the stage of this remarkable old playhouse during that golden era, and its walls again echoed with songs and merriment this last spring, when on March 16 a National Broadcast was given inside the old theater as a benefit to the Metropolitan Opera company by some of the Warner Brothers Motion Picture stars, appearing in the premiere of the film "Virginia City."

Thus we pay tribute to one of the famous old landmarks of the West—Piper's Opera House, silent now, its glory dimmed and almost forgotten, but around it is the memory of the past, when those pioneer actors and actresses gave their all, for a generation that is no more.

The property is now owned by E. L. Zimmer of Carson City, Nevada, grandson of William Piper for whom the theater was named.

Ancient Ruins in New Mexico! Who can identify this picture?



Prize Contest Announcement

The above picture shows what happens to an American city when its inhabitants go away and leave it for a few hundred years. This is the ruin of one of the earliest known cities in the United States.

No one knows for sure why it was abandoned, but the tree-ring experts have arrived at fairly accurate dates as to the period of its habitation.

The site of this ruin is northwestern New Mexico, and in order that Desert Magazine readers may become better acquainted with this historical landmark a cash prize of \$5.00 will be awarded the person who sends in the most complete and accurate story of not over 500 words describing this place.

Manuscripts should give exact location as to highways, the present status, and as much legendary and historical detail as can be condensed into the 500-word limit.

The contest is open to all readers of the Desert Magazine except employees of the national park service. To be eligible for the prize the entries must reach the Desert Magazine office not later than December 20, 1940. The winning story will be published in the February number of this magazine.

DECEMBER, 1940

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Southern Pacific



By RANDALL HENDERSON

DURING most of my mature years I have lived on the desert frontier—among associates who dreamed of the prosperity that would be their's as soon as the proposed new railroad was built, or the new irrigation project completed, or the paved highway brought through the town. Every western community has its visions of the wealth that will flow in when certain development projects have been carried through.

For many years I shared in this great illusion. The days I have spent working on chamber of commerce committees and writing booster letters and telegrams to congressmen, would total years in time. And I have seen many of these dreams come true—scores of new railroads and dams and irrigation canals and paved highways have been brought to the desert Southwest during the last 30 years.

But the old-timers seldom reap the benefits. The new roads and irrigation canals always bring new service stations and drug stores and hotels and restaurants—operated by owners with more modern goods and methods. Competition becomes keener—and the veteran who has lived and fought for the new highway, unless he can adjust himself to the new conditions, slips into the discard.

Do not misunderstand me. I would not discount the importance of these development projects. Without the efforts of the chambers of commerce and the dreams and sacrifices of the pioneers the desert would still be a fearful wilderness.

But it is not enough merely to promote new highways and canals and dams. These things bring changing conditions, and unless the individual cultivates within himself the adaptability to cope with the new environment, others will come in and displace him.

A chamber of commerce which places greater emphasis on the commercial aspect of community development than on the cultural life of its people is putting the cart before the horse. And the same applies to the individual.

* * *

I never met John Stewart MacClary personally, but in my files is a thick packet of letters I received from him—letters I prize more highly than any others that have come to my desk. John was one of the first contributors to submit an acceptable manuscript after the *Desert Magazine* was announced early in 1937. During 1938 and '39 he wrote the "Feel of the Desert" series, and many other interesting features for this magazine.

A telegram from his home in Pueblo, Colorado, brought news of his death November 1. He was 39. Due to a paralytic ailment with which he was stricken 10 years ago, he wrote under handicaps that would have defeated an ordinary human. Lifted from his bed and propped in a chair, with one hand taped in position so he could peck at the typewriter, a letter at a time, he carried on correspondence with scores of old friends, and wrote voluminously for newspapers and

magazines. Every sheet represented hours of discomfort and pain—and his typing was letter-perfect.

There was seldom a hint of the difficulties under which he was working. He had greater courage and optimism than any person I have ever known.

I hope Ol' St. Peter has a burro and pack outfit in one of the golden stables, and some ancient Indian ruins and precipitous canyons to explore. How John MacClary did love to tramp the desert wilderness in the days before his confinement!

* * *

There are persons—not many of them—who are temperamentally or physically unfitted for life on the desert, even under most favorable circumstances. A majority of humans, however, have enough of the pioneer in them to acquire a genuine attachment for the land of cloudless skies and purple haze. Among these folks, like or dislike of the desert is largely a matter of education.

Some of the newspaper editors in the Southwest are making important contributions to this educational task. I refer especially to Frank Beckwith of the *Delta, Utah, Chronicle*; Caryl Krouser of the *Barstow, California, Printer-Review*, and R. E. Osborne of the *Yuma, Arizona, Sun*. Their stories of travel and exploration in their local areas have opened a new field of recreation for their readers. It is a field that has tremendous possibilities for all the newspapers in the Southwest. There are a hundred thousand by-roads on this desert—and there's a human drama or a Nature story at the end of every one of them.

* * *

Desert rocks are a great deal like a majority of us human beings. They look rather drab and common on the outside—but when you explore beneath the surface they have unbelievable beauty.

I never realized quite how true this is until last month when I went to Barstow, California, to see the gem and mineral show staged in Beacon Inn by the Mojave desert rats and rockhounds.

Much of the exhibit was devoted to polished slabs, cut from the same kind of rocks you and I stumble over nearly every time we go on an exploring trip. We do not pay any attention to them in the rough, but after a little treatment on the rock saw, the grinding wheel and the buffers they take on exquisite coloring.

I have always been rather partial to this desert country, but after seeing the Barstow exhibits I think more of it than ever. I am in favor of more mineral shows. We all grant that Old Dame Nature was in a very artistic mood when she created the flowers and trees—but we have to go to a rockhound's display to fully appreciate the beauty inside the stones.

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